

# **SOCIAL SCIENCE**

**STANDARD SEVEN**

**TERM III**

## 1. THE VIJAYANAGAR AND BAHMANI KINGDOMS

### Rise of the Vijayanagar and Bahmani Kingdoms

A large number of provincial governors and feudatories, both in North and South India declared their Independence with the disintegration of the Delhi Sultanate after the reign of Muhammed-Bin-Tughluq. Bengal and Multan were the first to break away from Delhi. Gujarat, Malwa, Mewar, Marwar and Kashmir also became independent.

Further to this, Vijayanagar and the Bahmani kingdoms rose to prominence in the Deccan and South India.

### The Vijayanagar Empire (1336-1672 A.D.)

Harihara and Bukka serve under the Hoysala king ViraBallala III. After Hoysala's were put down by Muhammad-bin-Tughluq Harihara became the ruler. They founded the city of Vijayanagar on the Southern banks of Tungabhadra in 1336 A.D with the help of Saint vidaranya and his brother Sayana. Their capital was Hampi. Vijayanagar empire was ruled by four important dynasties namely the Sangama, Saluva, Tuluva and Aravidu.

**Harihara I** became the ruler in 1336 A.D. He captured Mysore and Madurai. He was succeeded by **Bukka-I** in 1356 A.D. His empire extended from the region south of the river Tungabhadra upto Rameswaram. The important rulers

of Vijayanagar Empire were **Harihara-II, Devaraya-I, Devaraya-II** and **Krishnadeva Raya**.

### KRISHNADEVA RAYA (1509-1529 A.D.)

Krishnadeva Raya of the Tuluva dynasty was the most famous king of the Vijayanagar Empire.



Krishnadeva Raya

According to Domingo Paes, a Portuguese traveller, "Krishnadeva Raya was the most feared and perfect king there could possibly be".

### CONQUESTS

Krishnadeva Raya was a great warrior. He conquered Sivasamudram in 1510 A.D., Raichur in 1512 A.D., Orissa and Warangal in 1523 A.D. and a large part of the Deccan. His empire extended from the river Krishna in the north to the river Cauvery in the south and the

Arabian Sea in the west to the Bay of Bengal in the east.

### Contributions

Krishnadevaraya was an able administrator. He constructed large tanks and canals for irrigation purposes. He improved the naval power as he understood the importance of overseas trade. He maintained friendly relationship with the Portuguese and Arab traders and increased the revenue of his government.

Krishnadeva Raya was a great scholar. A group of eight scholars called **Ashtadiggajas** adorned his court. He was a patron of art and architecture. He built beautiful temples and palaces. The Vijayanagar Empire reached its zenith of glory during Krishnadeva Raya's period.

#### The Ashtadiggajas

Allasani Peddanna, Nandi Thimmana, Tenali Rama, Bhattu Murthy, Puna Vira Bhadra, Dhurjathy, Mallana and Panaji Surana.

### BATTLE OF TALIKOTA (1565 A.D.)

The successors of Krishnadeva Raya were weak. During the rule of Ramaraya, the combined forces of Ahmednagar, Bijapur, Golconda and Bidar declared war on Vijayanagar. In the battle of Talikota in 1565 A.D. Ramaraya was defeated. He and his people were mercilessly killed. Vijayanagar was plundered and left in ruins.

## The Glories of the Vijayanagar Empire

### Administration

The Vijayanagar rulers had a well organized administrative system. The king was the fountain head of all powers in the state. There was a Council of Ministers to assist the King in the work of administration.

The Empire was divided into six Provinces. Each Province was under a Governor called Naik. The Provinces were divided into districts which were further divided into smaller units namely Villages. The Village Assembly carried on the administration of the villages through its hereditary officers like accountants, the weightsmen, watchmen and officers incharge of forced labour. The Central administration maintained contact with the villages through an officer called Mahanayakacharya.

### The Army

The army consisted of the infantry, cavalry and elephantry. The commander-in-chief was in charge of the army.

### Revenue Administration

Land revenue was the main source of income. The land was carefully surveyed and taxes were collected based on the fertility of the soil. Great attention was paid to agriculture and the construction of dams and canals.

### Judicial Administration

The king was the supreme judge. The civil cases were decided

on the basis of Hindu Law. Severe punishments were inflicted on the guilty. Fines were collected from those who violated the law.

### Position of Women

Women occupied a high position and took an active part in political, social and literary life of the empire. They were educated and trained in wrestling, in the use of various weapons of offence and defence, in music and fine arts. Some of them received education of high order. Nuniz writes that the kings had women astrologers, clerks, accountants, guards and wrestlers.

### Social life

We get a clear picture of the life of the Vijayanagar people from the writings of the foreign travellers. The society was well organized. Child marriage, dowry system polygamy and sati were prevalent. The kings allowed freedom of religion.

### Economic conditions

The empire of Vijayanagar was very rich and prosperous. The agricultural production was increased by their irrigational policies. Numerous industries such as Textiles, mining, metallurgy and perfumery existed. They had commercial relations with the islands in the Indian Ocean, the Malay Archipelago, Burma, China, Arabia, Persia, South Africa, Abyssinia and Portugal.

The chief articles exported were spices, cereals, cotton, silk, opium, indigo, sea pearls, saffron, ginger, sugar, coconuts, etc. The articles

imported were horses, elephants, copper, mercury, China silk and velvets. Goa, Diu, Cochin and Quilon were the important ports through which active trade was carried on the Western sea coast of India.

### Contribution to Architecture and Literature

The rulers of Vijayanagar were great patrons of art and learning. The **Hazara Ramasami temple** and **Vittalaswamy temple** are fine examples of this period. The bronze image of Krishnadeva Raya is a masterpiece. Many scholars were patronized by the Vijayanagar rulers. Sanskrit, Tamil, Telugu and Kannada literature were developed. **Sayana** wrote **commentaries on Vedas**. **Krishnadevaraya** wrote **Amuktamalyada** in telugu. His Sanskrit works were **Usha Parinayam** and **Jambavathi Kalyanam**.



#### VITTALASWAMI TEMPLE

Vittalaswami Temple was constructed during the reign of Krishna Deva Raya. In the front of the temple is a famous stone chariot of ratha, carved out of a Single rock. Another notable feature is the musical pillars. when tapped, these pillars produces music. It is called as 'musical' or 'Sa Re Ga Ma' pillars.



### Decline of the Empire

The rulers of the Aravidu dynasty were weak and incompetent. Taking advantage of their weakness the provincial governors became independent.

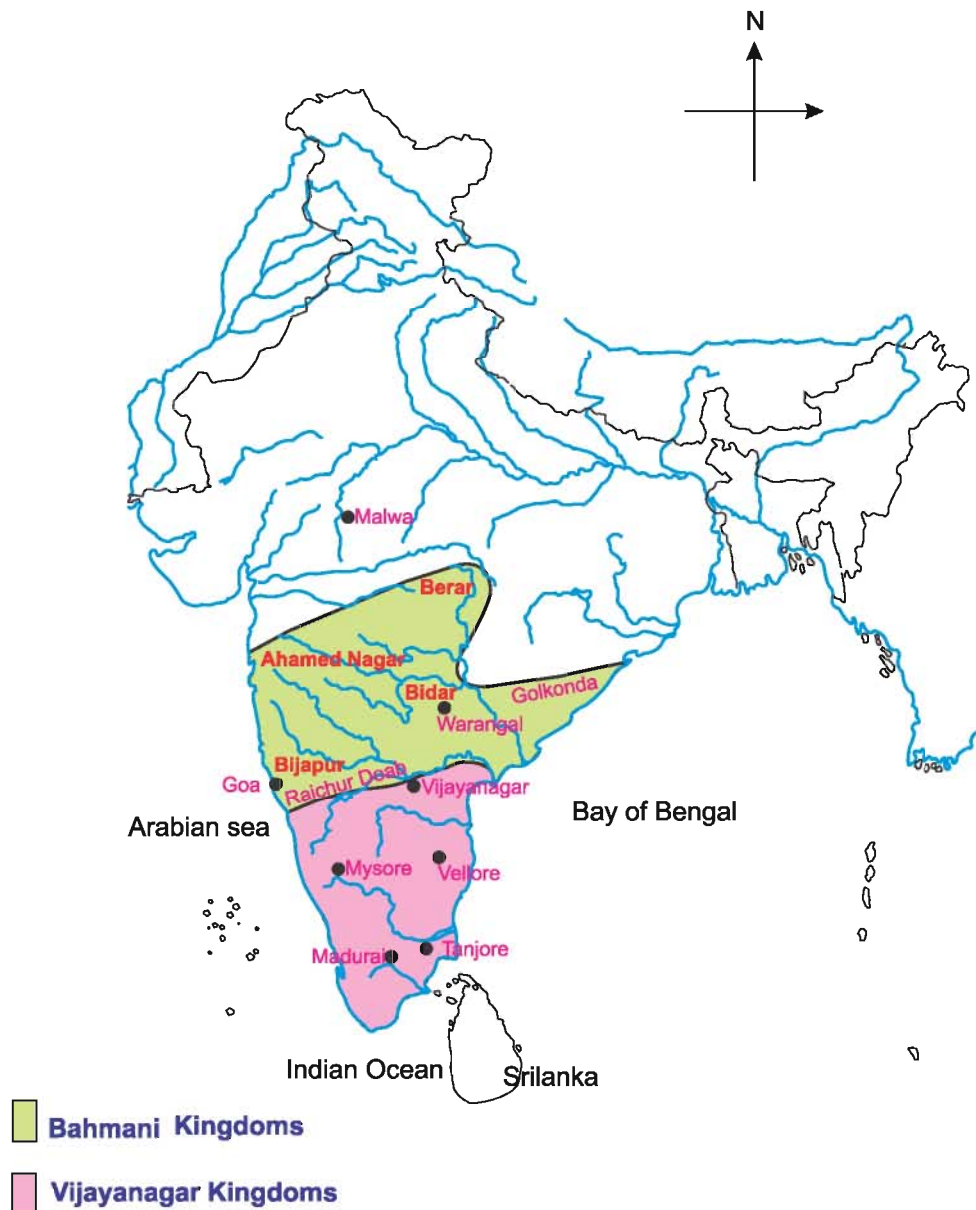
The rulers of Bijapur and Golconda annexed some areas of

Vijayanagar. The Nayaks became free in the south. Thus by 1614 A.D. Vijayanagar dynasty was declined.

### THE BAHMANI KINGDOM (1347-1526 A.D.)

The Bahmani kingdom was the most powerful Muslim kingdom that

**Bahmani and Vijayanagar Kingdoms**



rose to prominence in the Deccan in 1347 A.D. and lasted till 1526 A.D.

### Political History

The founder of this dynasty was **Hasan Gangu Bahmani**. He was a Turkish officer of Devagiri. He established the independent Bahmani kingdom in 1347 A.D. He captured the entire territories from Mahur in north-east to Telangana in the south. He defeated the Hindu ruler of Warangal and annexed Kolhapur, Goa, Mandu and Malwa. Thus his kingdom stretched from the Arabian sea to the Bay of Bengal and included the whole of Deccan upto the river Krishna with its capital at Gulbarga.

**Muhammad Shah-I** (1358-1377 A.D.), the next ruler was an able general and administrator. He defeated Bukka-I the ruler of Vijayanagar and Kapaya Nayaks of Warangal.

**Muhammad Shah-II** (1378-1397 A.D.) ascended the throne in 1378 A.D. He was peace loving and hence he developed friendly relations with his neighbours. He built many mosques, madararas (place of learning) and hospitals.

On the death of Muhammad Shah-II, **Feroz Shah Bahmani** (1397-1422 A.D.) became the ruler. He was a great general. He defeated Deva Raya I, the Vijayanagar ruler. He recruited a number of Hindus in his services.

Towards the end of his rule, he lost the northern and southern

provinces of his kingdom to Vijayanagar.

**Ahmad Shah** (1422-1435 A.D.) succeeded Feroz Shah Bahmani. He was a cruel and merciless ruler. He conquered the kingdom of Warangal and changed his capital from Gulbarga to Bidar. He died in 1435 A.D.

**Muhammad Shah-III** (1463-1482 A.D.) was another notable Bahmani ruler. He became the Sultan at the age of nine in 1463 A.D. Muhammad Gawan became the regent of the infant ruler. Under his able guidance the Bahmani kingdom became very powerful. Muhammad Gawan defeated the rulers of Konkan, Sangameshwar, Orissa and Vijayanagar. During this period the Bahmani kingdom stretched from one sea shore to the other and from the river Tapti to the river Tungabhadra.

### Muhammad Gawan

He was a very wise scholar and able administrator. He improved the administration, organized finances, encouraged public education, reformed the revenue system, disciplined the army and eliminated corruption.

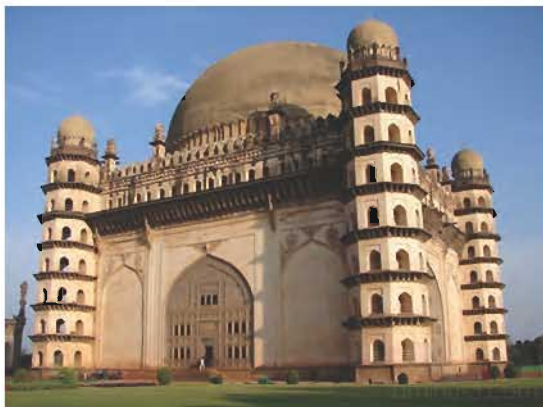
Muhammad Gawan fell a victim to the jealousy of Deccan muslims. He was falsely accused by them and so was persecuted and sentenced to death in 1481 by Muhammad Shah III, And he also died of guilt within a year.

## The Five Muslim Dynasties

Muhammad Shah-III died in 1482. His successors were weak and the Bahmani Kingdom disintegrated into five kingdoms namely Bijapur, Ahmednagar, Berar, Golconda and Bidar.

### Administration

The Sultans followed a Feudal type of administration. The kingdom was divided into many provinces called Tarafs. Each Taraf was under a Governor called Tarafdar or Amir. The Governors were powerful and supplied the king with men and equipments during times of war.



#### Golgumbaz

Golgumbaz in Bijapur is called the whispering gallery. This is so, because when one whispers in one corner, a lingering echo is heard in the opposite corner.

## Contribution to Education, Art and Architecture

The Bahmani Sultans gave great attention to education. They encouraged Arabic and Persian learning. Urdu also flourished during this period. Numerous mosques, madarasas and libraries were built. The most famous monuments of the Sultans were the Juma masjid at Gulbarga, the Golconda fort, the Golgumbaz at Bijapur and the Madarasas of Muhammad Gawan.



#### GOLCONDA FORT

Golconda fort is one of the most magnificent fortress. One of the most important feature of this fort is that the sounds of hands clapped at the entry gate, can be heard quite clearly at the top of the hill.

### Decline of Bahmani Kingdom

There were many causes for the downfall of the Bahmani kingdom. The constant wars between the Bahmani and Vijayanagar rulers, inefficient and weak successors of Muhammad Shah III and rivalry between the Bahmani rulers and foreign nobles were a few causes for the downfall of the Bahmani kingdom.

### EXERCISE

#### 1) Choose the correct answer.

1. The Vijayanagar Empire was founded in the year \_\_\_\_\_.  
a) 1337 A.D.                      b) 1336 A.D.                      c) 1338 A.D.

2. The brothers Harihara and Bukka served under the Hoysala King \_\_\_\_\_.  
a) Vira Ballala-III                      b) Narasimhan-II    c) Billiama-VI
3. The most famous king of the Vijayanagar empire was \_\_\_\_\_.  
a) Harihara                                  b) Bukka                      c) Krishnadeva Raya
4. The Muslim kingdom that rose to prominence in the Deccan in 1347 A.D. was the \_\_\_\_\_ kingdom.  
a) Slave                                      b) Vijayanagar              c) Bahmani
5. Muhammed Gawan was the Regent of \_\_\_\_\_.  
a) Muhammad Shah-III    b) Hasan Gangu    c) Ahmad Shah

### II) Fill in the blanks.

1. A group of eight scholars called \_\_\_\_\_ adorned the court of Krishnadeva Raya.
2. The Vijayanagar Empire reached its zenith of glory during the period of \_\_\_\_\_.
3. Ramaraya was defeated and killed in the Battle of \_\_\_\_\_.
4. The Bahmani Kingdom was founded by \_\_\_\_\_.
5. The Bahmani Sultans encouraged Arabic and \_\_\_\_\_ learning.

### III) Match the following.

- |                       |                                |
|-----------------------|--------------------------------|
| 1. Vijayanagar        | - Bijapur                      |
| 2. Battle of Talikota | - Ushaparinayam                |
| 3. Krishnadeva Raya   | - Gulbarga                     |
| 4. Juma Masjid        | - Southern bank of Tungabhadra |
| 5. Golgumbaz          | - 1565 A.D.                    |

### IV) Answer the following questions briefly.

1. What were the causes for the decline of the Vijayanagar Empire.
2. Who were the important rulers of the Vijayanagar Empire?
3. Write a short note on the Battle of Talikota.
4. When and by whom was the Bahmani kingdom founded?
5. Name the five Muslim kingdoms that arose in Deccan at the end of Bahmani rule.

### V) Answer in detail.

1. Discuss in detail about the glories of the Vijayanagar Empire.
2. Give an account of the political history of the Bahmani Kingdom.



## FORMATIVE ASSESSMENT

1. Make a comparison:  
Compare the village administration of the Vijayanagar Empire with the present day village administration system of Tamilnadu.
2. Best Talent Show:  
Narrate a story to prove the intelligence of Tenali Rama, one of the Ashtadiggajas.
3. Discuss:  
Domingo Paes says “ Krishnadeva Raya was the most feared and perfect king”. Discuss why he said so.
4. Justify:  
The best place to go on a study tour is – The Vijayanagar Empire or Bahmani Kingdom – Have a group discussion. Let the students judge which group was more concerning and why?
5. Focus:  
Women occupied a high position in the Vijayanagar Empire. Name a few women of today who are in a very high position.  
1. Political    2. Social                      3. Sports
6. Things to do:
  - i. Collect pictures and prepare an album on the various contributions of the Vijayanagar and Bahmani kingdom to art and architecture.
  - ii. On the outline map of India mark the following places.
    1. Berar
    2. Bidar
    3. Golkonda
    4. Ahmednagar
    5. Vijayanagar

## 2. BHAKTI AND SUFI MOVEMENTS

The Bhakti Movement of medieval India was a wide spread movement that embraced the whole of India for several centuries. The saints of the Bhakti movement advocated Bhakti or devotion to God as a means of attaining salvation. Its main objectives were to reform the Hindu religion and foster friendly relations between the Hindu and Muslim communities. The preachers of this movement belonged to different places and different times.

### Bhakti Cult in South India

Saivism and Vaishnavism revived and gained great impetus through the Bhakti Cult during the Pallava, Chola and Pandya period by the Nayanmars and the Alwars.

**There is a popular verse which says**

“Bhakti arose first in South India, Ramananda spread it to the north and Kabir made it popular among the masses”.

### Nayanmars

There were 63 Nayanmars who popularized the fame of Siva and Saivism. The most famous among them were Appar, Sundarar, Thirugnana Sambandar and Manikavasagar.

**Appar** was born around 600 A.D. in South Arcot district. Initially he was a follower of Jainism. Due to the

influence of his sister Thilagavathiyar, he became a devotee of Lord Shiva.

He composed 49,000 hymns (pathigams) and only 311 hymns are available.

**Manikavasagar** was firm in his faith of worship of one supreme God and declared that the way to reach God was love and not rituals. His work is called Tiruvasagam.

**Sambandhar** is said to have sung about 16000 devotional pathigams of which only 384 pathigams are available.

**Sundaramoorthy Nayanar** was born during the last decades of the 8<sup>th</sup> century A.D. in South Arcot district. He composed 38000 pathigams, of which only 100 pathigams are available.

The most popular works of this period are **Sekhizar's "Periyapuranam"** (Biographies of Nayanmars), **Devaram** (a collection of hymns) and **Thiruvagasam**. These hymns are great devotional, philosophical and literary works.

### Alwars

The glory of Lord Vishnu were sung by 12 Alwars. The most famous among the Alwars were **Nammalwar**, **Perialwar** and **Andal**. **Nadamuni** compiled the 4000 hymns sung by the Alwars and named it as **Nalayira Divya Prabhandam**.

## Early history of the Bhakti Movement

One of the earlier exponents of the Bhakti Movement of South India was Sankaracharya. He was born at Kaladi in Kerala. He preached Advaita philosophy or the worship of one God (Monotheism). He said Brahma or the Supreme spirit is alone real. Sankaracharya taught his followers to love truth, respect reason and realize the purpose of life.

## Exponents of the Movement

**Ramanuja**, a great exponent of the Bhakti movement, was born at Sriperumbudur.



**Ramanuja**

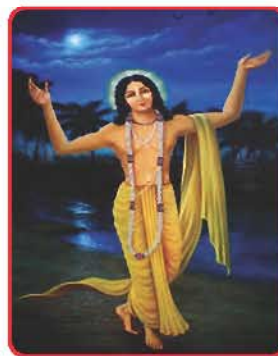
He was a great Vaishnavite leader of the 12<sup>th</sup> century A.D. He taught that salvation lies only in devotion to God. He invited the downtrodden to embrace Vaishnavism.

**Ramananda** was the follower of Ramanuja. He believed in the existence of God. He saw humanity as one large family and all men as brothers. His disciples came from all religions and castes. He started preaching in the language of the people.

**Vallabhacharya** (1479-1531 A.D.) was the devotee of Krishna who taught that an individual could attain salvation through Bhakti.

**Basava** was the founder of Virasaivism. His followers were known as Virasaivas or Lingayats. They challenged the idea of caste and theory of rebirth.

## Bhakti Cult in North India



**Chaitanya**

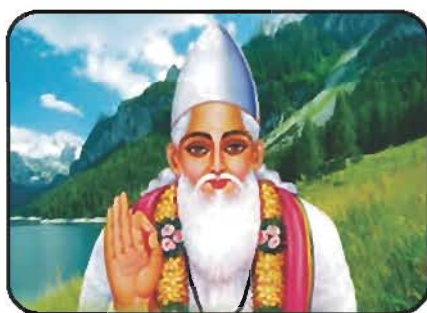
**Chaitanya** was born in Bengal in 1485 A.D. He propagated Krishna cult. He believed that one can realize the presence of God only through love and devotion.

**Kabir** (1425-1518 A.D.), the follower of Ramananda was the first to preach Hindu-Muslim unity. Kabir is regarded as the greatest of the mystic saints. His followers are called Kabirpanthis. His teachings have been collected in a book called Bijaka. His poems particularly Dohas had a great appeal to the common man. He said that Ram and Rahim were the same. He preached against idol worship and caste system.

**Kabir - A typical poem of him.**

O servant where dost thou seek me? Lo! I am beside thee

I am neither in temple nor in mosque,  
I am neither in Kaabha or Kailash  
Neither am I in rites and ceremonies  
nor in yoga and remuneration  
If thou art a true seeker, thou shall  
at once see me;  
thou shall meet me in a moment of time  
Kabir says; O Sadhu! God is breath  
of all breath.



Kabir

### Guru Nanak (1469-1538 A.D.)

Guru Nanak, another well-known Saint of the Bhakti Movement, was the founder of Sikhism. He was a disciple of Kabir.



Guru Nanak

He was born in 1469 A.D. at Talwandi near Lahore. He preached unity of God, goodwill and co-operation among Hindus and Muslims. He advocated truth,

honesty, kindness and condemned orthodox beliefs and idolatry or idol worship.

### Mirabai

Mirabai a saint of this movement was born in 1498 A.D. She was the



Mirabai

daughter of Rathor Ratan Singh of Mewar and wife of the ruler of Udaipur. She was a devotee of Krishna. She was very popular in Rajasthan for her bhajans. There is a big temple dedicated to Mirabai in chittor, the capital of Mewar.

### Maharashtra saints

The Maratha region produced a number of Bhakti Saints namely **Gnanadeva, Namdeva, Eknath, Tukaram, Tulsidas** and **Ramdas**. **Gnanadeva** wrote a commentary on **Bhagavat Gita** called **Gnaneswari**. Chokamela was the first dalit writer of India. Eknath opposed caste distinction.

**Guru Ramdas's** work was **Dasabodha**. **Tulsidas** was the author of **Ramcharit manas**.

### The Sufi Movement

Sufism was a reform movement which originated in Persia and became popular in India in the 12<sup>th</sup> century A.D. The followers of this movement were called as Sufis. The



Sufis protested against materialism of the Caliphate as a religious and political institution and turned towards asceticism and mysticism. They regarded Prophet Muhammad as a perfect human being. Sufism insisted that God could be reached only through meditation, love and devotion. They opposed rituals and were tolerant towards other religions. The Sufis organized themselves into communities and were controlled by a master known as Shaikh (in Arabic) Pir or Murshid (in Persian). The Sufis belonged to 12 orders called as Silsilas. The word Silsila means a "chain" signifying a continuous link between master and disciple. The Chisti Silsila is the most important Sufi order in India as they adapted successfully to the local environment and the features of Indian devotional tradition.

### Important Sufi Saints of India

Some of the most important Sufi Saints of India were Khwaja Muin-ud-din Chisti, Baba Farid and Nizam-ud-din Auliya.

**Khwaja Muin-ud-din Chisti** came to India around 1192 A.D. and stayed at Ajmer. According to him the greatest form of devotion to God was through service to humanity. He dedicated his entire life to the service of mankind. He was popularly known as 'Gharib Nawaz' or protector of the poor. He encouraged singing of devotional songs and qawalis at gatherings. He died in 1235 A.D. The place where he was buried in Ajmer is an

important place of pilgrimage.

The Hindu customs of breaking coconuts and lighting of lamp are followed here.

### Sufism –Name Derivation

Suf means wool. The coarse woolen clothes worn by the Sufis is an emblem of simplicity. It was a silent way of protest against the growing luxuries of the world.

Safa meaning purity.

Suffa was the platform outside the Prophets mosque where a group of close followers assembled to learn about the faith.



**Baba Farid**

**Baba Farid**, the disciple of Khwaja Muin-ud-din Chisti preached the unity of God and brotherhood. He encouraged people to live a simple life. He composed many verses in Punjabi which are recited by both the Hindus and the Muslims. Sultan Balban was a devotee of Baba Farid.

### Nizam - ud - din Auliya

Nizam-ud-din Auliya was a popular saint who came from Badayeen and settled in Delhi. He became the disciple of Baba Farid. He was against class and caste distinctions.

He was popularly referred to as Mehboob-i-illahi (Beloved of God) by his devotees. His dargah is at Delhi. It is visited by both the Hindus and Muslims.

### Saint Nagore Andavar

Saint Nagore Andavar belonged to the 16<sup>th</sup> Century A.D. He was popularly called as Meeran Sahib or QadirWali. The shrine at Nagore is dedicated to him. The Kandhuri Urs festival celebrated at Nagore is attended by people of all religions. Although the Nagore Dargah is dedicated to a Muslim saint, Hindu influence is seen in the architectural style of the Dargah and the rituals performed, e.g. applying sandalwood paste, giving prasadam, tonsuring the head etc.

### The Dargah or a tomb

The Dargah or a tomb of a Shaikh became a centre of devotion for his followers as they

believed that the Shaikh was united with God and become closer to Him in death. So the followers visited the Dargah seeking material and spiritual benefits.

### Impact of the Bhakti and Sufi Movements

The Bhakti and Sufi Movements tried to end the exploitation of the masses by the priestly class. They created awareness about the evils of superstitious beliefs. It paved the way for equality and brotherhood. The Bhakti saints preached against ritualism, idol worship, caste-system, priestly domination and difference of religions. They believed that through love and devotion one can realize the personal presence of God. They encouraged good will and co-operation among the Hindus and Muslims.

The Sufi Saints taught that there is one God and all human beings are his children. They emphasized on leading a pure life and serving the poor and needy. They condemned rituals and sacrifices.

Hindi, Punjabi, Bengali, Telugu, Kannada and Tamil literature were enriched by the Bhakti and Sufi saints.

### EXERCISE

#### 1) Choose the correct answer.

1. The Bhakti movement spread during the \_\_\_\_\_ period in India.
  - a) Medieval
  - b) Ancient
  - c) Modern

2. Shankaracharya was born at \_\_\_\_\_ in Kerala.  
a) Kaladi                      b) Talwandi                      c) Mewar
3. Gurunanak was the founder of \_\_\_\_\_.  
a) Sikhism                      b) Virasaivism                      c) Vaishnavism
4. Sufism originated in \_\_\_\_\_.  
a) Iraq                      b) Turkey                      c) Persia

**II) Fill in the blanks.**

1. Shankaracharya preached \_\_\_\_\_ philosophy.
2. Ramanuja, an exponent of the Bhakti movement was born at \_\_\_\_\_ near Chennai.
3. Basava was the founder of \_\_\_\_\_.
4. Gnanadeva wrote a commentary on Bhagavat Gita called \_\_\_\_\_.
5. \_\_\_\_\_ festival is celebrated at Nagore Dargah.

**III) Match the following.**

- |                  |                      |
|------------------|----------------------|
| 1. Nayanmars     | - Dalit Writer       |
| 2. Manikavasagar | - Vaishnavites       |
| 3. Alvars        | - Tiruvasagam        |
| 4. Mirabai       | - Saivites           |
| 5. Chokamela     | - Devotee of Krishna |

**IV) Answer the following questions briefly.**

1. What were the main objectives of the Bhakti movement?
2. What was the impact of the Bhakti cult in south India?
3. Write a short note on Kabir?
4. Name the Maratha Saints of the Bhakti movement.
5. What did the Sufists insist?

**V) Answer in detail.**

1. Give a detailed account of the exponents of the Bhakti movement in India.
2. Write in detail about the Sufi movement in India.
3. What was the impact of the Bhakti and Sufi movement in India.

## FORMATIVE ASSESSMENT

1. Group Discussion:

Discuss if the social evils condemned by the Bhakti saints are still prevalent? If so suggest some ways to prevent it.

2. Act:

With the help of your Tamil language teacher find out a few incidents which happened in the life of Bhakti / Sufi saints of Tamilnadu and act out it in the class room.

3. Sing:

Memorise a few poems / dohas of the Bhakti and sufi saints and sing it in class.

4. Collect:

Collect stories of Bhakti / Sufi saints published in the Newspapers / Magazines and read it in class.

5. Things to do:

1. Collect pictures of the Bhakti and sufi saints and prepare an album.
2. Prepare a chart on the twelve Alvars along with their literary works.



## 1. DISASTER AND DISASTER MANAGEMENT

In recent times India has witnessed many natural calamities like floods, land slides, tsunami and earthquakes. These disasters leave a trail of destruction and sufferings. It takes lot of time and money to rebuild and rehabilitate the people who had been affected. In this chapter you will study about what disaster is and how these disasters can be managed so that sufferings can be mitigated.

### What is Disaster

Any event that negatively affects society or community or environment can be called as disaster.

According to UN a disaster is defined as: "a serious disruption of the functioning of society, causing widespread human, material or environmental losses which exceed the ability of affected society to cope using only its own resources"

Why do these disasters occur? Some of these events happen due to natural causes over which we have no control. But other events occur due to the fact that we have, over a period of time, over exploited our natural resources. This has resulted

in floods, land-slides, soil erosion, global warming, drought etc. Since we are also responsible for the occurrence of disaster, it is our duty to learn the sustainable use of resources to overcome the adverse effects of the various disasters.

Hazard is an exposure to risk whereas disaster is a threat to life and property of a community. Cyclone is a hazard and it becomes a disaster when the same causes loss of life and property.

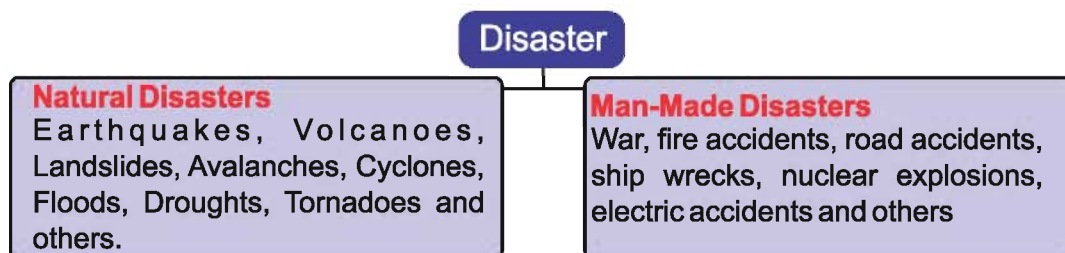
The disasters are broadly classified into Natural and Man-made. The natural disasters occur due to the natural forces whereas the man-made disasters occur due to human negligence.

### Mitigation

The definition of Mitigation is "to make (something bad ) less severe ".Disasters due to natural forces like cyclones cannot be avoided but the sufferings can be mitigated by taking steps in advance.

### Earthquake

A sudden movement or trembling of the earth's crust is called an earthquake.



The movement of the tectonic plates, volcanic eruptions, mass wasting, landslides, and surface fault line are the reasons for earthquake's occurrence.

Although hundreds of earthquakes occur in a year they are too weak to be detected except by an instrument called seismograph. One or two severe earthquakes do occur every year. The point where the earthquake originates is called **seismic focus** and the point directly above focus on the earth's surface is called the **epicentre**.

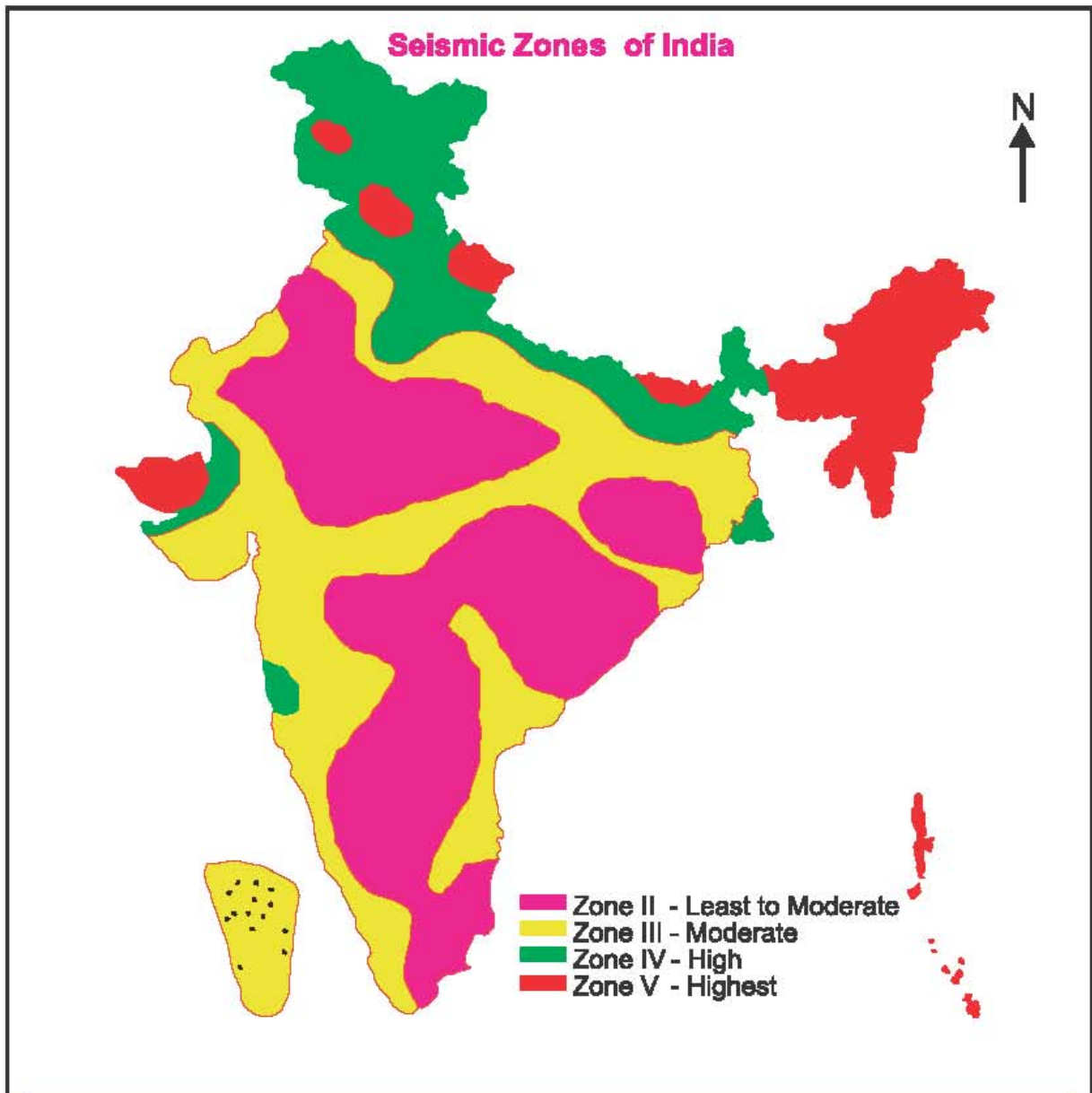
An earthquake is generally considered to be the most destructive and frightening of all forces of nature. The effect of an earthquake depends on its intensity and closeness to the epicenter. Due to a strong earthquake, buildings, roads, bridges and dams may get damaged. It may cause floods,

tsunamis, land-slides, avalanches, fires, breakdown of water supply and electrical lines, and loss of lives. An earthquake may even change the course of a river. A mild earthquake may cause cracks in buildings, roads and bridges.

On 26<sup>th</sup> January, 2001, 51<sup>st</sup> Republic Day of India, there was an earthquake in Gujarat with the magnitudes ranging from 7.6 to 8.1 on the Richter scale. The shock waves spread to 700 km, 21 districts were affected, 6,00,000 were rendered homeless, 19,727 people died and 1,66,001 people were injured. The quake destroyed around 90% of homes, eight schools, two hospitals and a historic Swami Narayan Temple.

India is divided into four seismic zones. These are listed in the following table.

Sesmic Zones	Regions	Types
V	Kashmir, Punjab, Western and Central Himalayas, Northeast Indian Region and Rann of Kutch.	Very High Damage Risk Zone.
IV	Indo-Gangetic basin, Delhi, Jammu and Bihar.	High Damage Risk Zone.
III	Andaman and Nicobar Islands, Western Himalayas.	Moderate Damage Risk Zone.
II	Deccan Plateau, Tamilnadu.	Low Damage Risk Zone.



**Fig-1 Multi-storey Building Damaged by Earthquake**

## Mitigation

What can be done to lessen the severity of damages?

In order to minimise the damages to life and property due to an earthquake an awareness has to be created in the public especially people living in the earthquake prone areas. People should be encouraged to build earth quake resistant homes. They should be helped to check the quality of soil before building their homes. The people should be made aware of the steps they should take during an earthquake. Awareness campaigns have to be made in schools so that right from an early age they learn how to protect themselves during an earthquake.

What are the steps that one can take during an earthquake?

The most important thing one must do is to remain calm. If you are inside a building stand at the doorway or crouch under a desk or a table away from windows or glass fixtures.

If you are outside, stay away from objects such as electric poles, trees , buildings, telephone and electrical wires. If you are in an automobile, stop at an open place away from fly overs and under passes.

Make sure to switch off gas stoves, put off candles or lamps and electrical lights to prevent fire.

If you live in multi-storied buildings do not use lifts, but instead use the staircase to get out.

## Volcanic Eruptions

Unlike earth quakes volcanic eruptions can be predicted because before a volcanic eruption there is always slight tremors, smoke and evolution of gas .

Due to volcanic eruptions 'lava' flows and ' lahars' can destroy settlements and destroy forest and agricultural lands.

Mud and ash from volcanoes when mixed with rain water or melted snow form mud flows which are called as Lahars.

The ash cloud and the smoke evolved affect visibility ,thereby affecting air traffic and may also affect agricultural and other economic activities.

Though volcanic eruptions cause great havoc there are some positive effects also. The ash and mud deposited provide nutrients to the soil there by improving the fertility of the soil. The volcanic materials are used for industrial purposes. Rocks formed by lava are used for building roads. The steam and hot water released can be used to generate geo thermal energy.



Fig-2 Iceland Volcanic explosions emits ash plume



The eruption of Nevado del Ruiz of Columbia in November 13, 1985 killed 40,000 people. It wiped out the entire city of Armero. Likewise, the most recent volcanic eruption in Iceland occurred on April 14, 2010, which erupted with a large ash plume (due to magma spewed from below the ice). More than 20 countries had to shut down their airports because of the ash plume.

### Mitigation

Volcanoes rarely kill people, still people should stay away from volcanoes.

All transport facilities are to be avoided, especially air transport near volcanic regions.

Volcanic eruptions may cause earthquakes. So people should take precautionary measures.

From the snow covered mountains, the volcanic eruptions may cause melting and flooding and therefore embankments must be built.

People should be aware of the results of tilt meter which measures the expansion of a volcano.

### Tsunamis

They are killer waves or Giant waves generated by earthquakes, volcanic eruptions or underwater landslides. It can raise to 15 metres or more in height. When earthquakes occur in the sea or ocean, the sea waves rise to several meters and may reach the coast within a few minutes. The danger period of Tsunami can continue for many hours after a major earthquake.

### Do you know?

The term **"Tsunami"** has been coined from the Japanese word. **"Tsu"** means harbour and **"nami"** means waves.

Tsunami waves travel at a speed of 500 kilometer per hour and speed increases when it approaches the continents.



Tsunami

A killer Tsunami hit South East Asian Countries on the 26<sup>th</sup> December of 2004 killing more than 1,50,000 lives.

### Do you know?

In India Tsunami warning centres has been set up at Hyderabad.

The emotional, economic and ecological toll of the disaster cannot be calculated. Many villages have lost entire generation. This was the biggest Tsunami to hit the world in 40 years. No one could have thought that its effects would ripple worldwide overnight.

### Mitigation

People should be aware of the information given by the Tsunami Warning Centre located at Hyderabad in India.

People should vacate the coastal area as soon as the tsunami warning is released.

Seriously injured persons should be given immediately First Aid.

Fishermen should not go for fishing.

We should not assume only the first wave is dangerous whereas the successive waves could be more dangerous.

### Landslide



Landslide

Land-slides may be defined as the movement of rock and debris down a slope. Debris mixed with rain water is called as mudflow or mud slide

Landslides are caused due to instability of the slope, heavy rainfall, earthquake, volcanic eruption, deforestation and also indiscriminate construction activity.



Landslides

Landslides affect agricultural production, destroy settlements, damage roads and railways and change the direction of surface run off.

### Mitigation

If houses are built on soft soil and slide prone areas, an alternative path for sliding soil should be provided.

When there is a chance of the roads being affected by landslides or mud slide alternate routes should be planned for quick evacuation.

### Avalanche

An avalanche can be defined as a large mass of snow or ice, descending down the mountain slope. It occurs in the high mountains and at the polar regions.



Avalanches are provoked by earthquakes, extreme precipitation, man-made disturbances such as loud noise, heavy movement of the skiers and use of explosives. The Avalanches become severe when more accumulation of snow takes place at the time of avalanches.

The effects of Avalanches are destruction and blockage of the roads, destroying a small hamlet, vegetation and wild life.



Avalanches



Avalanches

### Mitigation

It is difficult to check or stop the avalanches but the power of avalanches can be reduced to minimize its effects.

Hill resorts, mountain towns, roads and railways are to be avoided in the areas of avalanches.

People should be instructed not to use explosives.

People who live on hill slopes should be encouraged to plant trees around their houses.

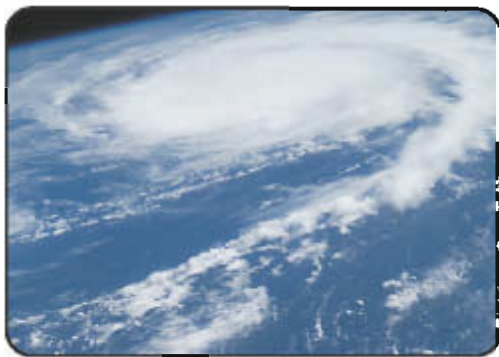
### Cyclones

South Indian coastal areas are affected more by cyclones than by any other disaster. Every year, the cyclones cause a few deaths along the coromandel coast, especially in Andhra Pradesh and Odisha.

The Indian Coastal regions are among the six major cyclone prone regions of the world.

The cyclones are the strongest winds generated by the meeting of the cold and warm fronts in the centre of low-pressure systems. When they are all formed over the sea and oceans they become violent due to the fact that there are no barriers to check these winds.

The cyclone is always associated with strong winds and torrential rains. Strong winds may uproot trees and electrical poles thereby blocking roads, damaging buildings and disrupting electricity supply. Torrential rains will lead to water logging and floods affecting normal lives of people. Heavy rains will result in Soil erosion and destruction of standing crops. There also may be loss of lives due to falling of trees, collapsing of buildings and washing away of homes. Water logging for a longer period will cause the spread of water borne diseases like cholera and typhoid.



Super cyclone 1999

### Do you know?

On October 29, 1999 Super-cyclone winds with a speed of 260-300 km/hour hit the 144 km coast of Odisha with a storm surge. It caused the water of the Bay of Bengal to rise 8 metre high. The super storm entered inland beyond 250 km from shore and within 36 hrs ravaged more than 20 million hectares of land, devouring trees leaving behind a huge trail of destruction. The violent cyclone was like a merciless giant and broke the backbone of odisha state and killed thousands and devastated millions of hectares of land.

### Mitigation

In water logged areas temporary channels should be built to drain the water.

People living in old buildings may have to temporarily shift their residence.

People should keep their important documents and jewels in a safe and secure place.

Fishermen are advised by the government not to venture into the sea for fishing.

There is always the danger of electrocution from damaged electrical wires and poles. Hence people have to be careful .

People are advised to drink boiled water to avoid spread of water borne diseases.

People should listen to radio or watch television news to know about the cyclone warnings and follow the instructions announced by the government.

### Floods

Floods are a temporary inundation or overflow of water. They are caused due to very heavy rainfall, cyclones, melting of snow, tsunami or a dam burst. Floods are common features in Tamilnadu, Andhra Pradesh, and Odisha due to very heavy rainfall during the Northeast Monsoon season and in Mumbai during the Southwest Monsoon season.

Floods destroy sewage system, pollute water, cause soil erosion, silt deposition, water logging, destruction to agricultural fields, livestock, damage to the fishing equipments, building structures and to the loss of life.

Why do floods occur more frequently in the north Indian rivers than in the south Indian rivers.





**Floods**

Floods and droughts are the two problems caused due to the vagaries of monsoon.

### **Mitigation**

People in low lying area should move out to safer places as advised by their governments. To avoid overflow of water, Channels have to be dug to drain out water from agricultural fields and low lying areas. Sand bags are to be placed in front of the houses so that water does not enter the homes.

Ponds and lakes should be desilted, river embankments have to be raised and the drainage system de-blocked before the onset of monsoon.

For a long term solution to repeated floods afforestation is to be encouraged and rainwater harvesting methods to be implemented.

Older students may volunteer by collecting and distributing clothes and food packets to help people who have been affected by floods.

### **Drought**

Drought refers to the prolonged

dryness of weather due to lack of rainfall. It is difficult to indicate the time of its onset and end. According to the Indian Meteorological Department, the country is declared as drought-affected when overall rainfall deficiency is more than 10 % over a long period.

The major reason for the drought is the scarcity of rainfall. Scarcity of rain can be listed due to failure of monsoons, vagaries of monsoons, deforestation, environmental degradation, high rate of evaporation, poor land management, overgrazing and soil erosion.

The rainfed crops are mostly affected due to droughts. Other effects are: (i) scarce drinking water supply, (ii) shortage of food, (iii) lack of water to the livestock, (iv) nutrition deficiency diseases and (v) soil erosion.



**Drought**

### Mitigation

The following are the ways by which loss and suffering can be minimised

Planned land development, alternate cropping for optimal use of land, and drip irrigation method will help in increasing the farm output.

Better storage facility to store grains, proper utilisation of rain water will help in mitigating drought condition.

Fodder and drinking water for the cattle has to be ensured during drought period.

Food grains and fodder should be transported to needy areas.

Drought relief planning at village level has to be undertaken to provide quick relief to the affected people.

### Tornadoes

A tornado is a violently rotating column of air that is in contact with the surface of earth and the cumulonimbus cloud(thunder cloud base).Tornadoes occur in many different shapes and sizes but the typical tornado is funnel shaped with the narrow end touching the surface of the earth.

They are caused due to extreme low pressure. They originate in land, generating a rapid whirl wind. They are formed when hot air and cold air are mixed. They cause heavy destruction to both life and property like a cyclone.

On March 24, 1998: Violent tornado or tornadoes killed 160 people and injured 2,000 when they streaked through 20 coastal villages on the eastern states of West Bengal and Odisha, Ten people in a boat were killed when they were thrown up to 20ft high.

Thirty-five children were crushed to death when a school building being used as a shelter collapsed at Goborghata in the Balasore district in Odisha, The tornadoes flattened 15,000 homes and left more than 10,000 people homeless.

#### Do you know?

In USA, it is known as a twister, because of the twisting motion of funnel shaped cloud.



Tornadoes

### Mitigation

As soon as tornadoes warnings are heard, people need to get inside their homes or storm cellars or lie down on the ground.

If you are outside, stay in a safe place and return home when it is declared safe by the authorities.

Always follow the instructions and warnings given by the authorities.

### Disaster management

Disaster management involves awareness of the different type of disasters, disaster preparedness, prevention, relief and recovery.

People should be forewarned and educated to safeguard themselves

and their property against disasters. Awareness programmes should be organised in schools, colleges and offices. General public should be made aware through radio, newspapers and television programmes. Governments should have a plan of action to mobilise various departments to provide timely and quick relief to the affected people.

### EXERCISE

#### I) Choose the correct answer

1. The major reason for the drought is the \_\_\_\_\_.  
(a) Scarcity of rainfall      (b) environmental degradation  
(c) Afforestation      (d) Industry
2. Tornadoes are common in  
(a) India      (b) Bangladesh  
(c) China      (d) U.S.A
3. Landslides often occur in  
(a) Desert region      (b) Forest region  
(c) Tundra region      (d) Hilly region
4. The word Tsunami has been derived from  
(a) Tamil      (b) French  
(c) Japanese      (d) Latin
5. Of the following which is not a natural disaster  
(a) Nuclear explosion      (b) Deforestation  
(c) Forest fire      (d) Lightning

**II) Fill in the blanks**

1. Hazard is an\_\_\_\_\_.
2. India is divided in to\_\_\_\_\_ seismic zones.
3. In India Tsunami warning centre has been set up at\_\_\_\_\_.
4. Debris flow is also known as\_\_\_\_\_.
5. Avalanches occur on the high\_\_\_\_\_ and high\_\_\_\_\_.

**III) Match the following**

- |                 |   |                      |
|-----------------|---|----------------------|
| 1. Tornadoes    | - | Heavy rainfall       |
| 2. Molten rocks | - | Whirling air         |
| 3. Landslide    | - | Volcanic eruption    |
| 4. Drought      | - | Tsunami              |
| 5. Earthquake   | - | Scarcity of rainfall |

**IV) Answer the following questions briefly**

1. What is disaster?
2. Define Mitigation.
3. What is Landslide?
4. Differentiate floods and droughts.
5. Differentiate Tornadoes and Cyclones.

**V) Answer the following questions in detail**

1. What do you mean by disaster? Explain the natural and man made disaster.
2. Write about Tsunami and its effects on environment.
3. List out the Mitigation measures of flood affected areas.
4. What are the steps one can take when earthquake hits?
5. Write about the seismic zones of India.

**VI) Map Skill**

Mark the seismic zones on the outline map of India.



### FORMATIVE ASSESSMENT

1. Write an essay on Earthquakes occurred in India during 2011 - 2012.
2. Prepare an album on “December 26, 2004 - Tsunami” to show the effects and the steps taken to rebuilt the areas.
3. Find out the reasons for the landslides, which are quite often in the Nilgiri district. Write an essay to stop the landslides with your suggestions and suitable pictures.
4. Have a discussion on cyclone - “Thane” affected areas and steps taken to develop the areas.
5. Draw a poster and advertisement boards to show the importance of “Rainwater Harvesting” to safeguard ourselves during drought.
6. Mark the seismic zones of India on the outline map.

## 2. AN INTRODUCTION TO OCEANOGRAPHY

The ocean plays a crucial role in sustaining life on Earth and is a key element in climate change. The ocean is a store house of mineral resources. Various problems are already witnessed along the coastal areas and small islands for example pollution, exhausted fishing stocks, disappearing coastlines, rising sea level, increasing surface temperatures that threaten life on the earth. Better knowledge on ocean system will help us predict some of the changes expected in the future and hopefully we can overcome all the above problems. The systematic observations of the oceans will enable us to forecast imminent disasters from storms, floods and droughts and to mitigate their effects, by warning the populations at risk.

### Do you know?

An ocean (from Greek Ὠκεανὸς, "okeanos" Oceanus) is a major body of saline water and a principal component of the hydrosphere.

### What is Oceanography?

Oceanography is a branch of science which deals with the physical-chemical characteristics of ocean water and its depth, temperature, salinity, ocean currents, waves, tides, flora and fauna found at the bottom of the oceans.

Oceans cover about 70 % of the Earth's surface and they contain

roughly 97 % of the Earth's water. A large stretch of water covering a vast area is called an ocean.

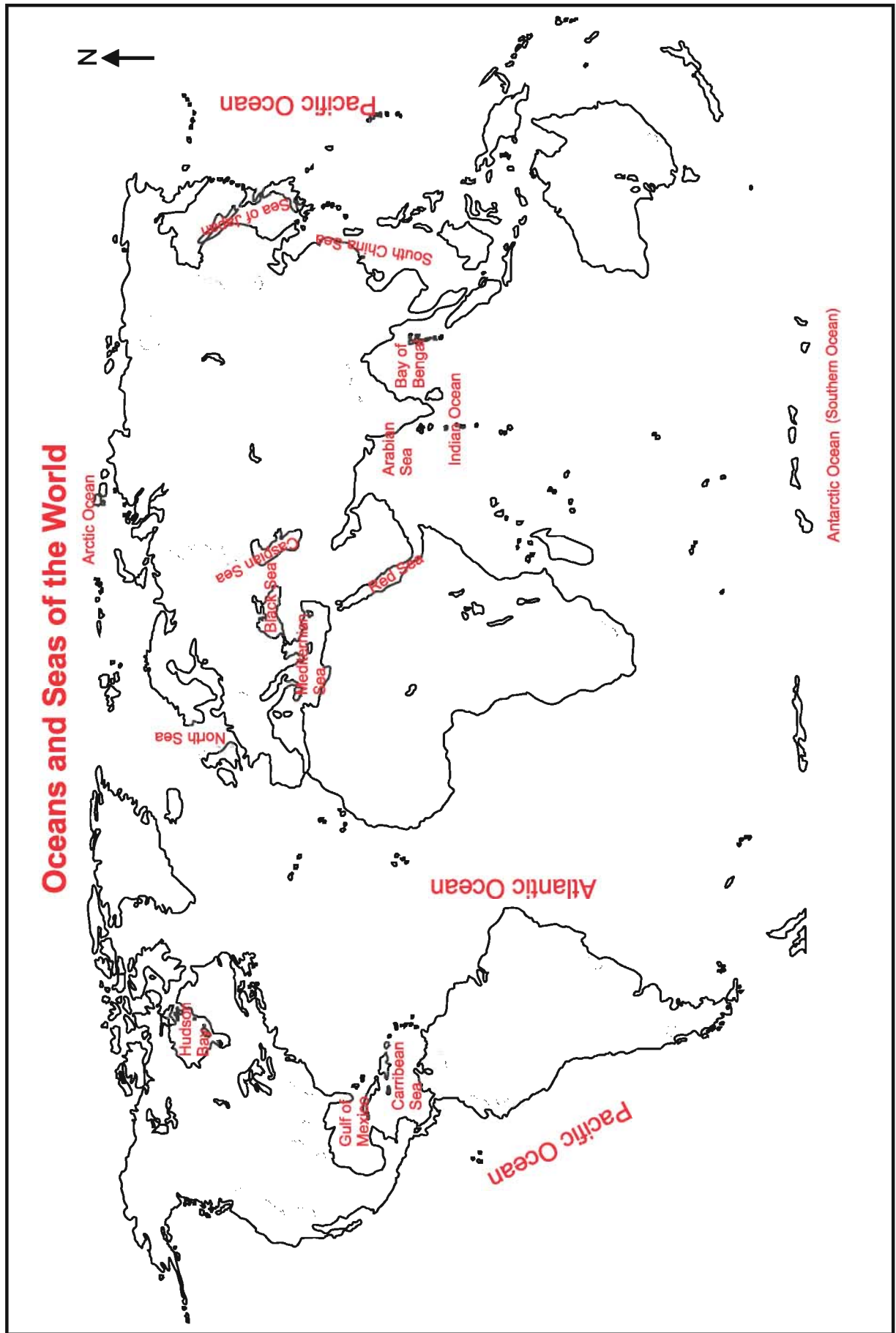
The earth is nick named **"Watery Planet"**. The oceans of the Earth are unique in our Solar System. No other planet in our Solar System has liquid water (although recent findings on Mars indicate that Mars may have had some liquid water in the recent past). It is believed that the life on the Earth first originated in the seas.

The oceans of Earth serve many functions, especially affecting the weather and temperature. They modify Earth's temperature by absorbing incoming solar radiation. The ocean currents distribute the absorbed heat energy around the globe.

The Pacific, Atlantic, Indian, Arctic and Southern ocean (Antarctic) are the five well known oceans and these are connected to one another by means of seas, gulfs, bays, straits and canals.

### The Pacific Ocean

The Pacific is the largest and the deepest ocean. It is triangular in shape and covers 33 % of the total area of the earth's surface. Its average depth is 5,000 metres. It is bounded by Asia and Australia on the west, North America and South America to the east and Antarctica to the south.



The Challenger Deep (Mariana's Trench) in the South Pacific is the deepest in the world with 11,933 metres. There are 20,000 islands in the Pacific Ocean. New Zealand, Indonesia, Japan and Hawaii are the well known islands.

### **The Atlantic Ocean**

The Atlantic Ocean is elongated 'S' in shape and it extends over 16.5% of the total area of the earth. The area of this ocean is about 50% of the Pacific Ocean. It is bounded on the west by North and South Americas, east by Europe and Africa. The important islands found in the Atlantic Ocean are Greenland, British Isles, Newfoundland, West Indies, Cape Verde and Canaries. The Atlantic trade route is considered as the world's busiest trade route.

### **The Indian Ocean**

The Indian Ocean covers 20% of the total area of all oceans of the world. On the north, it is bounded by India, Pakistan and Iran; on the east by Australia, Sunda Islands and Malaysia and on the west by the Arabian Peninsula and Africa. On the southwest, it joins with the Atlantic Ocean near the southern tip of Africa. On the east and southeast, it meets the Pacific Ocean. The average depth of the ocean is 4,000 metres. Andaman, Nicobar, Maldives, Madagascar, Sri Lanka, Sumatra and Java are the well known islands of the Indian Ocean. This is the only ocean named after a country since the sea route was familiar for the traders from time immemorial.

### **Antarctic Ocean**

This is the fourth largest, coldest and southern most ocean found around the continent of Antarctica. This ocean is often referred to as the "Southern Ocean". Alexander Islands, Balleny islands and Ross islands are some of the islands found in the ocean. The average depth of this ocean is about 4,500 metres and its temperature varies from -2 to 10°C. In winter, more than half of its surface is covered with ice.

### **The Arctic Ocean**

The Arctic Ocean is almost circular in shape and it surrounds the North Pole of the earth. Its total area is about 14 million square kilometres. It has an average depth of 4,000 metres. The main islands are Victoria islands, Elizabeth islands, Iceland, Spitsbergen and Novaya Zemlya.

### **The Seas of the World**

There are many inlets known as seas; seas are often partly enclosed by land. The South China Sea, the Caribbean Sea, and the Mediterranean Sea are some of the major seas of the world.

### **Topography of the Ocean Floor**

The ocean floor profile begins where the water meets the land at the shoreline. The shoreline is very unstable. It changes due to wave actions and wind actions.

The topography of the ocean floor consists of i) Continental shelf ii) Continental slope and iii) Ocean floor (abyssal plain).



The **continental shelf** is the shallow area found along the coast with a depth of 100 metres. The continental shelf is a suitable place for coastal fishing since it has rich fish food known as plankton example Grand banks (Newfoundland), Dogger Bank (U.K). This is an area known for many off shore oil fields. Example Mumbai High.

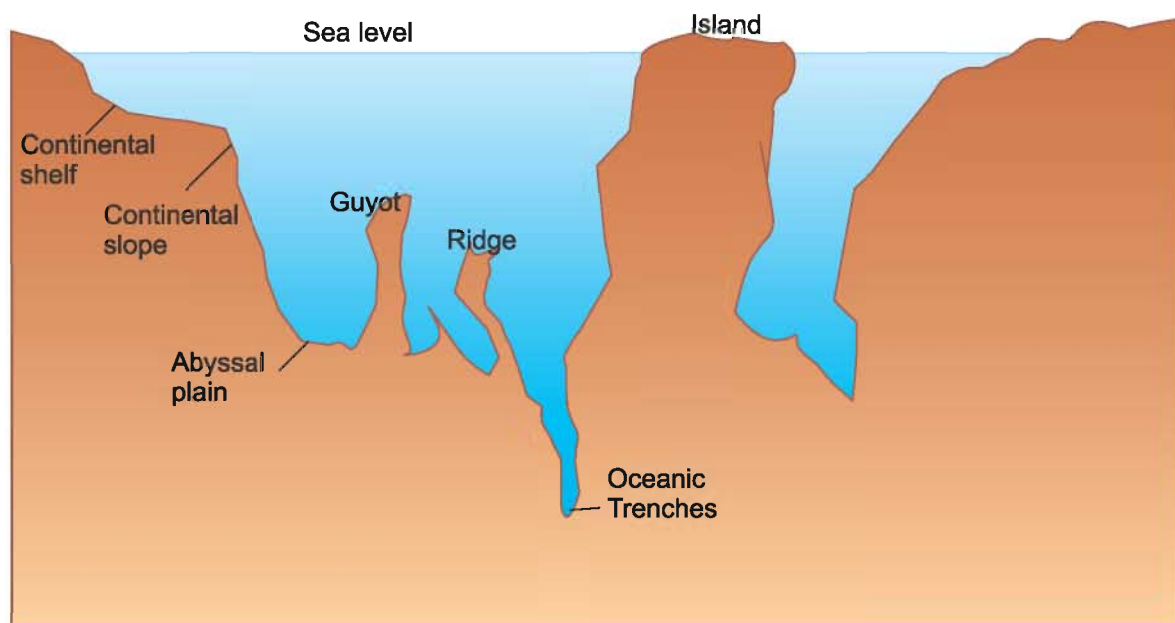
**Continental slope** is a rapid steep slope which connects the continental shelf and the ocean floor. The continental slope and continental shelf are together referred to as the "**continental margin**".

The average depth of the continental slope is about 155 metres.

The irregular coasts and the deep continental slopes are essential for the formation of natural harbours. Example: Kochi and Mumbai. The continental slope is often marked with underwater canyons, cliffs and underwater mud-slides.

The **abyssal plain** is low flat surface of the ocean floor. The abyssal plain is covered with ooze which is rotten organic materials of dead marine organisms. The **Mid-ocean ridge** is the underwater mountain range formed by the plate tectonic forces.

**Seamounts** are underwater volcanic mountains. If a seamount appear above the water surface, it is called an **island**. Once the island is eroded and it slips underwater, it is called a **guyot**.



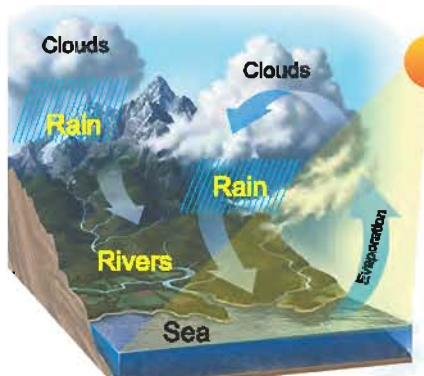
Topography of the Ocean Floor

**Oceanic trenches** are the deepest features in the ocean. Ocean trenches are created when two tectonic plates collide and the denser plate is pushed under the lighter plate.

### Hydrological Cycle

Hydrological Cycle (also known as the water cycle) is the journey that water takes as it circulates from land to the sky and back again. The Sun's heat provides energy to evaporate water from oceans and lakes. Plants also lose water through photosynthesis to the air and it is called evapotranspiration. The water vapor eventually condenses into tiny droplets and form clouds. When the clouds reach saturation point, precipitation (rain, sleet, or snow) is triggered, and water returns to the land (or sea). Some of the precipitation soaks into the ground and this water is trapped between rocks or clay layers; this is called groundwater. But most of the water flows downhill as runoff (above ground or underground), eventually returning to the seas as slightly salty water.

The most common salts in the sea water are sodium chloride,



Hydrological Cycle

magnesium chloride, magnesium sulphate, calcium sulphate, potassium sulphate, calcium carbonate and magnesium bromide.

### Why is the Sea water Salty?

As water flows in rivers it picks up small amount of mineral salts from the rocks and soils of the river beds. This mildly salty water flows into the oceans and seas. The water in the oceans only leaves by evaporating (and the freezing of polar ice), but the salt remains dissolved in the ocean - it does not evaporate. So the remaining water gets saltier and saltier as time passes.

#### Activity

Did you ever taste the sea water? why is it salty?

### Salinity

Salinity is the amount of dissolved salt content in water. Salinity is generally reported in terms of parts per thousand (abbreviated ‰), the average ocean salinity is 35 grams per kilogram.

#### Activity

Why does salinity differ from ocean to ocean?

The saltiest water is in the Dead Sea, Red Sea and in the Persian Gulf which have a salinity of about 40 grams per kilogram (due to very high evaporation rates and low fresh

water entry). Dead sea is the most saline of seas. The least salty seas are in the Polar Regions, where both melting polar ice and a lot of rain dilute the salinity.

### Activity

The salinity in the land locked tropical seas is higher. Why?

### Temperature of the Ocean

Temperature of the ocean water plays the most significant role in controlling its biological characteristics. The role of the sea water temperature is vital in causing the ocean currents and other movements of water. Since oceans have greater capacity for the storage of the solar energy, they play a major role in maintaining the equilibrium in the heat budget of the earth. Land surface gets heated and cooled quickly but water tends to heat up and cool down slowly. This differential heating of the land and water make distinct types of marine and continental types of climates found on the surface of the earth.

The surface temperature of the oceans is controlled by various factors such as the latitudes, ocean currents, prevailing winds and local weather.

### Waves

The water in the oceans is always moving up and down. This movement of water is called waves. Wind is the most important cause of wave generation. Most natural waves are initiated by winds.

### Ocean currents

Ocean currents are the general movement of a mass of surface water in a fairly defined direction.

In other words, an ocean current may be defined as any persistent, dominantly horizontal flow of the ocean water. The ocean currents, like rivers, flow with certain velocity along a certain path. There are two types of ocean currents: **warm** and **cold currents**. Warm currents originate from low latitude and drifts towards poles; whereas cold currents originate from high latitudes and move towards equator.

There are many factors that influence the generation of ocean currents are:

- Differences in temperature;
- Density of ocean water (salinity);
- Winds and Atmospheric pressure;
- Coriolis force;
- Gravitational force;
- Precipitation and evaporation; and
- Melting of snow and ice.

### Tides

The rise and fall of sea water is known as tides which occur twice a day due to the gravitational pull of the moon and sun on the earth at an interval of 6 hours. When the sea water rises, it is called high tide and the fall of sea water is called the **ebb** or **low tide**.

Spring tide occurs during the full moon days and new moon days. During these days, Sun, Moon and

Earth are in a straight line. On such days, the gravitational pull of the moon and sun are combined. At these times, high tides are very high and low tides are very low.

Neap tides occur during first and third quarter phases of the moon. During the phases of the moon, sun, moon and earth are at right angles. As a result, the gravitational pull of the moon are perpendicular to one another. During this time, the high tides are very low and low tides are very high.

### Activity

List out the marine resources.

### Ocean's influences on human life

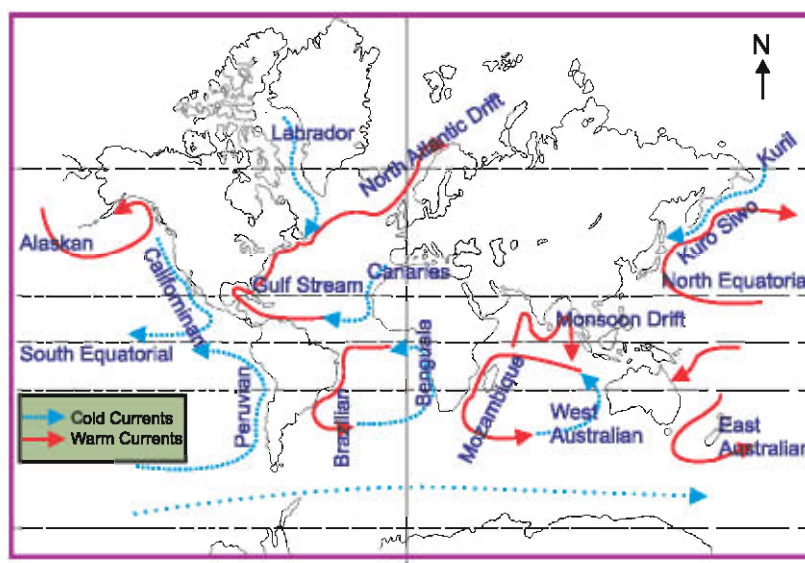
Oceans are the most important part of man's physical environment. Oceans influence man in various ways, from the climate he experiences, the oxygen he breathes and the food he eats to the economic, social, political and

military conditions under which he operates.

Oceans form the major source of protein rich fish food. Several valuable minerals are known to be abundant in the sea including gold, silver, manganese, petroleum and pearl. Apart from the other minerals found in seawater magnesium, bromine, and sodium chloride (common salt) are also found. The ocean floor yields sand, gravel, and oyster shells for construction purposes and small quantities of diamonds are found in some submarine gravel bars.

Offshore oil and gas wells supply about 17 per cent of the world's petroleum production. Oceans also hold potential as an important alternate source of energy. Thermal energy of the oceans resulting from absorption of solar heat and from ocean currents can be converted into electricity—a process known as ocean thermal energy conversion (OTEC).

### WORLD-MAJOR OCEAN CURRENTS





## EXERCISE

### I) Choose the correct answer.

1. A large stretch of water bounded by continents is called \_\_\_\_\_.  
a) Ocean                      b) Sea                      c) Gulf                      d) Bay
2. The Atlantic Ocean is elongated \_\_\_\_\_ in shape.  
a) 'L'                      b) 'S'                      c) 'U'                      d) 'O'
3. The rise and fall of sea water twice due to gravitation is known as \_\_\_\_\_.  
a) Tides                      b) Ocean currents                      c) Tsunami                      d) waves
4. A \_\_\_\_\_ is a table top underwater mountain.  
a) Guyot                      b) Abyssal plain                      c) Sea mount                      d) Ocean ridge
5. The hydrological cycle is also known as \_\_\_\_\_.  
a) Hydrogen cycle                      b) Oxygen cycle                      c) Water cycle                      d) carbon cycle

### II) Fill in the blanks.

1. The Earth is nick named as \_\_\_\_\_.
2. \_\_\_\_\_ is the deepest trench in the Pacific Ocean.
3. The inlets are known as \_\_\_\_\_.
4. The abyssal plain is covered with \_\_\_\_\_.
5. \_\_\_\_\_ is the most important cause of wave generation.

### III) Answer the following questions.

1. Define salinity.
2. What are ocean currents?
3. How are waves caused?
4. What is oceanography?
5. Name marine resources.

### IV) Answer the following questions in detail.

1. Discuss about Indian ocean.
2. Write about continental shelf and continental slope.
3. Explain what is water cycle?
4. What are tides? Explain its types.
5. Write any five points on how do oceans influences human life.
6. Write a brief paragraph on salinity of the oceans.

### **V) Map Skill**

1. Mark the oceans and seas on the outline map of world.
2. Mark the warm and cold ocean currents on the outline map of world

### **FORMATIVE ASSESSMENT**

1. Mark the oceans and seas on the outline map of world.
2. Conduct a debate to indicate the advantages and disadvantages of a country having long continental shelves.
3. Make models of Topography of ocean floor and water cycle.
4. Make a chart to show the spring tide and neap tide.
5. Mark the major ocean currents on the outline map of world.

## 1. UNITED NATIONS ORGANIZATION

The Second World War which began in 1939 lasted until 1945. This proved to be more destructive than First World War as more than fifty million people had lost their lives. The League of Nations, a World Organisation, formed after First World war, to maintain peace and security failed to prevent the Second World War.

The USA, the USSR and the UK realized the immediate and urgent need for a world forum to establish an everlasting peace in the world. This led to the formation of the United Nations Organisation.

### Preliminary Plans

The concrete plan for a new world organization began under the support of the US State Department in 1939. Franklin D. Roosevelt, the former President of USA first coined the term United Nations to describe the Allied countries which stood for peace. The term was first officially used on January 1<sup>st</sup> 1942, when 26 countries signed the Atlantic Charter in Washington DC.

#### Atlantic Charter

It is a set of principles formulated for maintaining peace and security. It was signed on 14<sup>th</sup> August 1941 by President Franklin D. Roosevelt of the USA and Prime Minister Winston Churchill of UK on the ship, HMS Prince of Wales in the Atlantic Ocean. So, it came to be called the Atlantic Charter.

### UN Charter

After a series of conferences held at various places, the UNO was created. The UN Conference began in San Francisco on 25<sup>th</sup> April 1945 to draft the Charter of UNO. UN charter contains the aims, objectives, rules and regulations for the working of the UNO. It was signed on 26<sup>th</sup> June 1945 by the representatives of 50 countries. Poland signed the Charter later. The UNO came into existence on 24<sup>th</sup> October 1945. Hence the UNO Day is celebrated on 24<sup>th</sup> October every year.

### CONFERENCES PRIOR TO UNOs FORMATION

30<sup>th</sup> Oct 1943 - Moscow  
1<sup>st</sup> Dec 1943 - Teheran  
21<sup>st</sup> Sep 1944 - Dumbarton Oaks  
7<sup>th</sup> Oct 1944 - Dumbarton Oaks  
11<sup>th</sup> Feb 1945 - Yalta

### MEMBERSHIP

Peace loving nations that accept the UN charter are the members of UNO. At present 193 countries are members of the UNO. The headquarters of the UNO is situated in Manhattan, New York.

### The Emblem, Flag and Languages of UNO

The emblem is a map of the World as seen from the North Pole with five concentric circles. It is surrounded by a wreath of olive

branches which symbolizes peace.

The World map depicts the United Nations area of concern in achieving its main purpose namely peace and security.



UNO Emblem

#### UNO's functions

- peace-keeping
- conflict-prevention
- Refugees protection
- Counter terrorism, disarmament and Non-Proliferation.
- Promoting Democracy
- Sustainable development maintaining climate friendly energy future
- Promoting international health, Childcare
- Reducing Measles Mortality
- Eradicating Polio
- Prevention of Malarial Deaths
- Expanding Food production etc.,

The UN Flag consists of the UN emblem in white on a medium light blue back ground. The official languages of the UN are English, French, Spanish, Russian, Chinese and Arabic.

#### Objectives of UNO

The objectives of the UNO are

To solve the disputes among the member countries through peaceful means.

To maintain international peace

and security.

To develop friendly relations among nations.

To co-operate in solving International Economic, Social, Cultural or Humanitarian Problems.

To promote social progress, better living standards and human rights.

#### UNO Millennium Development Goals

The UNO formulated the following goals for the present millennium.

- 1.To eradicate extreme poverty and hunger.
- 2.To achieve universal primary education.
- 3.To promote gender equality and empower women.
- 4.To reduce child mortality
- 5.To improve maternal health.
- 6.To fight against HIV/AIDS, malaria and other diseases.
- 7.To ensure environment sustainability.
- 8.To develop a global partnership for development.

#### Organs of UNO

The six principle organs are the General Assembly, the Security Council, the Economic and Social Council, the International Court of Justice, the Trusteeship Council and the Secretariat.

#### The General Assembly

The General Assembly is the main deliberative organ of the United Nations. It is called the "Parliament of Mankind".



Mrs. Vijayalakshmi Pandit of India was elected as the President of the General Assembly in 1953.

### **The decision process**

The decision on important issues, such as peace and security, admission of new members and budgetary matters, require a 2/3 majority. Decision on other questions is by simple majority.

It is composed of representatives of all member countries, each of which has one vote. Each member state can send five members to the General Assembly. The General Assembly holds its session once a year. The session is generally held in the month of September. A special session of the Assembly can also be called for at the request of the Security Council.

The main functions of the General Assembly are as follows:

1. To elect the President and 21 Vice-Presidents and the non-permanent members of the Security Council and the members of other organs of the UN.

2. To approve the UN budget.

3. With the recommendation of the Security Council, it appoints the Secretary-General and Judges of the International Court of Justice.

### **The Security Council**

The Security Council is the second important organ of the UNO. It acts as the executive branch of the UNO. The Security Council is composed of fifteen members - five

permanent members and ten Non Permanent members. The permanent members are Russian Federation, France, USA, UK and China. The non-permanent members are elected by the General Assembly for a term of 2 years. The Security Council meets every month and members take turn at holding presidency of the security council for one month, following the English alphabetical order of the member states. The Council needs a 2/3 majority to take decision. The permanent members have the **veto power**. (Power to say **No** to a decision.)

### **Main functions of the Security Council**

1. To maintain international peace and security.
2. To find peaceful ways to settle disputes of member states.
3. To recommend the admission of new members and
4. To participate in the election of the Secretary-General.

### **The Economic and Social Council**

The Economic and Social Council co-ordinates the economic and social work of the UNO and its specialized agencies. It has 54 members elected by the General Assembly for a three year term. Every three years, 1/3 of its members are set aside and new members are elected in their place. It meets throughout the year as and when needed. At its session in July, the major Economic, Social and Humanitarian issues such as social development, the status of women, crime prevention,

and sustainable development etc are discussed.

### **The Trusteeship Council**

The Trusteeship Council was established to provide international supervision for 11 Trust Territories administered by 7 member states to ensure that adequate steps were taken to prepare the territories for self-government or independence. By 1994 all the Trust Territories had attained self-government or independence, either as separate states or by joining neighbouring independent countries. On the completion of its work, the Trusteeship Council has amended its rules and procedures to allow it to meet as and when the occasion may arise.

### **The International Court of Justice**

The International Court of Justice is also known as the **World Court**. It is the main judicial organ of the UNO. Its 15 judges are elected by the General Assembly and the Security Council. The International Court solves the disputes between the countries concerned.

The Court also gives advisory opinion to the United Nations and its specialized agencies. It is situated in the city of The Hague in Holland.

### **The Secretariat**

The Secretariat carries out the administrative work of the United Nations as directed by the General Assembly, the Security Council and the other Organs. It is headed by the Secretary General, who provides

overall administrative guidance. The present Secretary - General Ban ki-moon of South Korea was elected in 2007.

The Secretariat consists of departments and offices with a total staff of about 7500. The staff are chosen on the basis of their high standard of efficiency, competence and integrity.

The UNO also carries on its work through thirty specialised agencies which help in achieving its various goals.

Some of the Specialized Agencies are:  
 FAO-Food and Agricultural Organisation  
 ILO-International Labour Organisation  
 IMF- International Monetary Fund.  
 UNICEF- United Nations International Children's Emergency Fund  
 UNESCO - United Nations Educational Scientific and Cultural Organisation  
 WHO- World Health Organisation  
 WTO- World Trade Organisation.

### **Achievements of the UNO**

The UNO has succeeded in maintaining international peace and security and has averted global wars through peaceful negotiations. It has also helped in solving many of the social, cultural, economic and humanitarian problems among the member countries.

#### **Major achievements of the UNO**

1946-made Russia withdraw its troops from Iran and Britain and France to withdraw their troops from Syria and Lebanon.

1947-freed Indonesia from the Dutch.

1956-intervened in the Suez Canal crisis and finally internationalized the canal.

1962 and 1973-diffused the Cuban missile crisis and the Middle East Crisis.

1988-the Iran-Iraq war was ended

1989-sponsored negotiations for the withdrawal of Soviet troops from Afghanistan.

1990-restored sovereignty to Kuwait and ended civil wars in Cambodia, El Salvador, Guatemala and Mozambique

Its specialized agency WHO (World Health Organisation) has successfully eradicated small pox and is working towards the elimination of polio, malaria and tuberculosis. The UNHCR (The United Nations High Commission for Refugees) has taken a lot of effort to resettle refugees.

The UNO and its specialized agencies work for a safer world for the future generation.

### EXERCISE

#### I) Choose the correct answer.

1. The Headquarters of the UNO is at \_\_\_\_\_.  
a) Washington                      b) The Hague                      c) New York
2. The \_\_\_\_\_ is called the Parliament of Mankind.  
a) Trusteeship Council      b) General Assembly  
c) Economic and Social Council
3. One of the official languages of the UNO is \_\_\_\_\_.  
a) Hindi                              b) German                              c) French
4. There are \_\_\_\_\_ permanent members in the Security Council.  
a) 4                                      b) 5                                      c) 10
5. The programme launched by the \_\_\_\_\_ has successfully eradicated small pox.  
a) WHO                                      b) ILO                                      c) UNESCO

**II) Fill in the blanks.**

1. The term United Nations was coined by \_\_\_\_\_.
2. The UN Charter was signed by \_\_\_\_\_ countries on 26th June 1945.
3. The executive branch of the UNO is \_\_\_\_\_.
4. All the Trust Territories have attained self-government by the year \_\_\_\_\_.
5. The International Court of Justice is located at \_\_\_\_\_ in Holland.

**III) Match the following.**

- |                    |                         |
|--------------------|-------------------------|
| 1. UN Conference   | - Resettles Refugees    |
| 2. UNO             | - San Francisco         |
| 3. Ban Ki-moon     | - New York              |
| 4. UN Headquarters | - 24th October 1945     |
| 5. UNHCR           | - UN Secretary-General. |

**IV) Answer the following questions briefly.**

1. Describe the emblem of the UNO.
2. Which are the official languages of the UNO?
3. Mention some specialized Agencies of UNO.
4. Who are the permanent members of the Security Council?
5. What is the role of the International Court of Justice?

**V) Answer in detail.**

1. Write a note on the millennium development goals of the UNO.
2. What are the Principle organs of the UNO? Explain the General Assembly and the functions of the Security Council.
3. Mention the major achievements of the U.N.O



### FORMATIVE ASSESSMENT

1. Prepare Charts:  
Prepare charts on the various organs and functions of the UNO.
2. Group Discussion:  
Discuss how the UNO helps to bring about Socio – economic and cultural development among its members.
3. Quiz competition:  
Conduct a quiz competition on the UNO and its achievements.
4. Find more:  
List out at least ten specialized agencies of the UNO and its headquarters.
5. Prepare an album:  
Collect pictures on the Security generals of the UNO and prepare an album.
6. Things to do:  
Collect information on how the UNO helps women and children in India.

## 2. LEGISLATIONS AND WELFARE SCHEMES FOR CHILDREN AND WOMEN

India is a welfare state committed to ensure the well-being of all its citizens especially for children and women. No country can make progress until women are educated because a mother is the teacher of the child. The children are the future pillars of our nation. So, much importance is given to the development of children and women in India.

### Legislations for Children

**Article 39(f)** and **45** of the Directive Principles of our Constitution directs the State to enact laws for the protection and development of children.

**Article 24** is a Fundamental Right. It deals with the Right against Exploitation and Prohibition of Child Labour.

**Article 39(f)** provides facilities for the children to develop in a healthy manner; provides for proper care for children and youth; and provides protection against exploitation.

**Article 45** provides for free and compulsory education for all children up to the age of 14 years.

No child below the age of 14 years shall be allowed to work in any factory or mine or engage in any hazardous employment.

### The Ministry of Women and Children

The Ministry's vision is ensuring overall survival,

development and protection of women and children of the country to enable them to lead productive and wholesome lives as citizens.

### Right to Education

A hundred years ago, Gopala Krishna Gokhale a great leader of the freedom struggle demanded the right to education for Indian children from the Imperial Legislative Assembly. His dream for the Right to Education came true when the Government of India introduced the **Right to Education Act (REA)** on 1<sup>st</sup> April 2010. The right to education is now a fundamental right for all children in the age group of 6 to 14 years. Thus the Government of India has paved the way for building up a strong literate and empowered youth of this country.

### Acts passed by the Government

Several Acts have been passed for the welfare of the children. A few of them are:

1. The Juvenile Injustice Act was passed in 1986 and amended in 2000.
2. Infant Milk Substitute, Feeding Bottles and Infant Food Act-1992.
3. Commission for Protection of Child Rights Act-2005.

## **Schemes and programmes for Children**

Many schemes and programmes have been implemented for the upliftment and benefit of children.

1) Integrated Child Development Services (ICDS) Scheme-(1975) has the following objectives.

a) To improve the health of children (under the age of 6 years), pregnant women and feeding mothers.

b) To reduce the rate of mortality, malnutrition and school drop-outs.

2) Rajiv Gandhi National Creche Scheme for the Children of Working Mothers-(2006) provides services to children (of the age group 0-6 years) of working mothers by opening creches.

3) An integrated Programme for Street children provides facilities like shelter, nutrition, healthcare education and leisure facilities. It protects them from abuse and exploitation.

4) Child Line Services aims at helping children during times of difficulties and emergency. They also concentrate on childcare and protection.

5) Integrated Child Protection Scheme provides institutional as well as non-institutional support for children.

6) Scheme for Welfare of Working children in need of Care and Protection-(2005) aims to provide non-formal education and

vocational training to working children in order to continue their education.

## **Observance of Children's Day**

Children's Day is celebrated on 14<sup>th</sup> November of every year. It gives the Government and Social organisations yet another opportunity to focus on the children so as to review the steps taken for their improvement and to work out ways for their enhancement in various fields.

## **Government's Recognition Of Outstanding Children**

Our Government gives due recognition to children with exceptional abilities and outstanding achievements in various fields like academics, arts, culture and sports.

The National Child Award for Exceptional Achievements was instituted in 1996 to honour such children. Children between the age group of 4 and 15 years are honoured with meritorious awards on Republic Day every year.

In spite of all the legislations passed by the Government, it is very essential to create awareness among children about the dangers around them. They should be educated to approach the concerned authorities or the proper channels to report their problems and to get guidance and counselling.

The parents, the schools and the public should take the moral responsibility to co-operate with the

Government and Welfare Agencies to protect the children from various abuses and exploitation.

### **Women Empowerment and Legislations**

The position of women from time immemorial is of a varied nature. Sometimes women hold a position of honour and high esteem while at other times they have to face untold miseries and hardships. To improve their status in society the Government of India has assured several rights to women and has enacted a number of legislations.

### **Rights and Legislations for Women**

Article 23 of the Constitution are of great significance to the emancipation of women.

Articles 23 prohibits trade of woman like commodities.

Forced labour is made as an offence.

Human Trafficking is made illegal.

Women are assured the Right against exploitation.

Law allows the daughter along with the sons to claim the property of their families. Child Marriage Restraint Amendment Act of 1978 has increased the age of marriage of girls from 15 to 18 years and for boys from 18 to 21 years.

The Dowry Prohibition Act of 1961 bans the custom of giving and receiving dowry. The Dowry

Prohibition Amendment Act of 1986 provides drastic punishments for those ill-treating women in connection with dowry.

In addition to the Constitutional Provisions, the State Government and Union Territories have enacted a number of legislations to protect women against social injustice and exploitation. For example- The Tamil Nadu Legislature has passed the Prohibition of Eve Teasing Law in 1997. It was amended in 2002 as the Prevention of Harassment of Women Act.

Amendments have been made in the Constitution from time to time for the benefit of the citizens. The 73rd and 74th Amendment Acts have provided 33% reservations of seats for women in the Panchayatraj and Urban Local bodies.

### **Economic Empowerment Schemes**

Many schemes and programmes have been formulated to protect, educate and uplift women in India. Some of them are:

#### **1.Support to Training and Employment Programme(STEP)**

This programme was started in the year 1996 to provide employment for women in handloom, handicrafts, khadi and village industries.

#### **2.Swayamsidha**

The scheme was for the socio-economic development and empowerment of women through Self Help Groups, etc.



### 3.Short Stay Home-(1996)

These homes help to rehabilitate girls and women facing social, economic and emotional problems.

### 4.Family Counselling Centres

These centres give counselling to the victims facing social atrocities and family mal-adjustment.

### 5.Condensed Courses of Education of Women

Girls in the age group of 15 years and above who fail to complete their schooling due to various reasons are given education and training in relevant skills. These courses create job opportunities for them and facilitates their empowerment.

### 6. Awareness Generation Programmes for Rural and Poor women

Women face many problems as they are unaware of their rights and privileges. This program creates awareness among women on issues like status and rights and helps them to solve their problems.

The Legislation passed by the Government and the efforts taken by many social welfare institutions has definitely enhanced the status of children and women in India. We can boldly say that the position of women and children has improved a lot and will rise higher in the years to come.

## EXERCISE

### I) Choose the correct answers.

1. The \_\_\_\_\_ are the future pillars of our nation  
a) Elderly person's      b) Middle aged persons      c) Children
2. The \_\_\_\_\_ in the Constitution provides facilities for the children to develop in a healthy manner  
a) Article 39(f)      b) Article 45      c) Article 25
3. The Government of India introduced the Right to Education on \_\_\_\_\_  
a) 15<sup>th</sup> August 1947      b) 26<sup>th</sup> January 1950      c) 1<sup>st</sup> April 2010
4. The 72nd and 73rd Amendment Acts have provided 33 % reservations of seats for \_\_\_\_\_ in the local bodies  
a) teachers      b) women      c) graduates
5. \_\_\_\_\_ deals with the socio-economic development and empowerment of women through self-help groups.  
a) Short Stay Home      b) Swayamsidha  
c) Family Counselling Centres

**II) Fill in the blanks.**

1. The Juvenile Injustice Act was amended in the year \_\_\_\_\_ .
2. The Child Line Services aims at helping \_\_\_\_\_ during times of difficulties and emergency.
3. The Child Marriage Restraint Act of 1978 has increased the age of marriage of girls from 15yrs to \_\_\_\_\_ years.
4. TamilNadu Legislature passed the Prohibition of Eve-Teasing Law in \_\_\_\_\_.
5. The Family Counselling Centres were started to give \_\_\_\_\_ for the victims facing social problems.

**III) Match the following.**

- |                          |                                 |
|--------------------------|---------------------------------|
| 1. Article 45            | - to reduce rate of mortality   |
| 2. ICDS Scheme           | - 1961                          |
| 3. Children's Day        | - rehabilitation of girls       |
| 4. Dowry Prohibition Act | - 14th November                 |
| 5. Short Stay Home       | - free and compulsory education |

**IV) Answer the following briefly.**

1. What does Article 24 deal with?
2. Name a few Acts passed for the welfare of children.
3. Which group of children are given due recognition by our Government on the Republic day?
4. How do Article 23 help women?
5. What does Dowry Prohibition Act ban?

**V) Answer in detail.**

1. What are the schemes and programmes undertaken for the upliftment and benefit of children?
2. Give a detailed account of the economic empowerment schemes for women.

## FORMATIVE ASSESSMENT

1. Debate:  
How far is Article 24 of the constitution successful in dealing with the prohibition of child labour. Conduct a debate in class.
2. Prepare a Poster:  
Prepare a poster to highlights the important provisions of the Right to Education Act.
3. Discuss:  
What are the measures taken by the Government to prevent dropouts? Discuss with the help of your teachers.
4. Find out:  
Know more about the contributions made by the Non – Governmental Organisations to promote the welfare of the women and children in your locality.
5. Skit:  
Act out a skit on the given topic.  
“The children are the future pillars of our nation”.

## 1. FACTORS OF PRODUCTION

Economics is a social science which deals with human wants and their satisfaction. Economics deals with the society's problems such as unemployment, poverty, medical care, productivity and government policies.



**Adam Smith**

Adam Smith is called as the father of Economics. He defined Economics as follows: 'Economics is the science of wealth'. The publication of Adam Smith's book "An enquiry into the nature and causes of wealth of nations" laid the foundation of Economics as a systematic study.

Lionel Robbins has defined economics as follows: "Economics is the science which studies human behavior as a relationship between ends and scarce means which have alternative uses".

### **Society and scarce resources**

A society allocates its scarce resources among different uses. Economics seeks to formulate the



**Lionel Robbins**

criteria which would achieve the best possible allocation of resources.

In the modern world, people want to consume large number of goods and Services in their day to day life. Goods and services have to be produced and offered to the public. Production means the process by which man converts the resources of nature to satisfy human wants. The level of production of goods and services in a country determines the quantum of its national income. Advanced countries produce large amount of goods and services thereby their national incomes are at higher level.

### **Let's Learn**

Production means creation of utility. Utility means wants satisfying power.

Land, Labour, Capital and Organisation used by society to produce consumer satisfying goods



and services are called factors of production. The production of any good or service inevitably requires all four factor inputs. Each factor plays a unique role in the production process. Even if one factor is not used, production is impossible. Therefore the producer combines the factors of production in the right proportion and produces goods. The aim of every producer is to get maximum profit at a minimum cost. Thus, production includes not only material goods, but also various services such as the services of doctors, teachers and others.

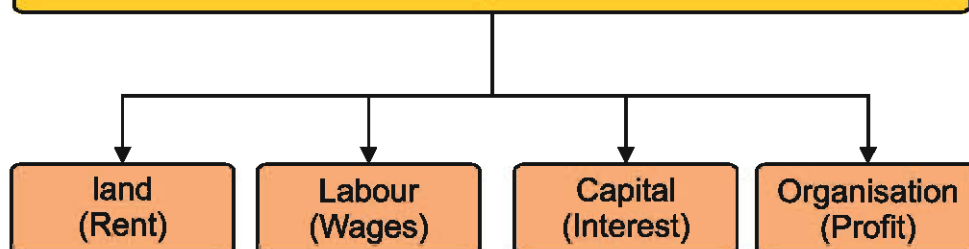
### Activity

Do you know how the goods are produced in the society?.

Land and labour are often referred to as original factors or primary factors. Capital and Organization are derived factors. Even a small piece of chalk cannot be produced without active participation of factors of production.



## FACTORS OF PRODUCTION AND FACTOR REWARDS



## LAND

In the ordinary language land means earth, but in Economics Land is defined as everything in the Universe that is not created by human beings. **All the free gifts of nature are termed as land.** Air, sunlight, earth, forest, rivers and minerals are all classified as land. The reward to the land as a factor of production is called rent. Land possesses certain peculiarities which are not found in other factors of production.

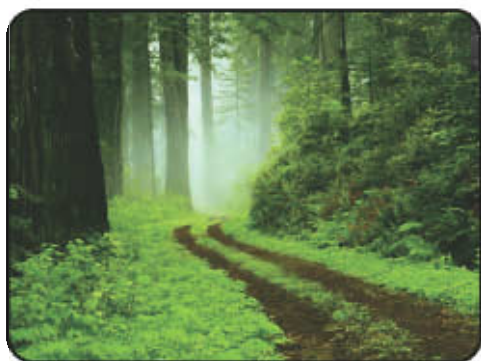
### LETS LEARN

Land and labour are original factors. Capital and Organization are derived factors.

You can find below the free gifts of nature.



EARTH



FOREST



RIVER



Mineral

### Characteristics of land

#### 1. Land is a free gift of nature

Land was not made by man. It was already in existence.

#### 2. Land is fixed in supply

The total area of land cannot be increased or decreased. Man can only change the uses of land.

#### 3. Land is permanent

It is permanent in the sense; it cannot be destroyed by man.

#### 4. Land differs in fertility

Some lands are highly fertile. Some are less fertile. No Two lands are exactly the same in quality.

#### 5. Land is a passive factor of production

It cannot produce anything by

itself. Men have to work on land to produce goods and services.

## Labour

Labour refers to any work undertaken for securing an income or reward. Such work may be physical or mental. The work done by a cook is physical labour. The work of a teacher is mental labour. Any work undertaken only for pleasure is not regarded as labour. The reward paid to labour as a factor of production is called wages.

### ACTIVITY

Where are most of the people in your locality employed?



Physical Labour



Mental Labour

## Characteristics of Labour

### 1. Labour Is perishable

It cannot be stored like commodities. Labour power once lost cannot be regained.

### 2. Labour is inseparable

Labour cannot be separated from the labourer. For example dance cannot be separated from the dancer.

### 3. Labour power differs from person to person

Even those who have the same qualification and training may be different in their efficiency. This accounts for differences in wages.



#### 4. Labour is mobile

Man moves from one place to another from low paid occupation to a high paid of occupation.

#### 5. Individual Labour has weak bargaining power

In developing countries like India, labourers are forced to accept low wages rather than to remain unemployed. The emergence of trade unions has improved the bargaining power.

#### Efficiency of Labour

Efficiency of labour means the productive capacity of labour to do more work or better. More efficient labour can increase production and thus promote economic growth. Efficiency of labour depends upon several factors.

- a. Climatic conditions.
- b. Racial and hereditary factors.
- c. Better working condition in the place of work.
- d. Duration of work.
- e. Availability of social security against risk, accident, Provident fund etc.

#### Division of labour

Adam Smith, the father of Economics introduced the concept of Division of labour in his book "Wealth of Nations". His example was the making of pins.

#### Meaning of Division of Labour

Division of labour means dividing the process of production

into several component processes and assigning each component in the hands of a labourer or a set of labourers, who are specialists in that particular process.

Adam Smith described the pin making process which could be divided into 18 distinct operations such as fixing the head, sharpening the point etc. With division of labour 10 men can produce 48,000 pins a day. A worker can produce 4800 pins a day. In the absence of division of labour and machinery a worker could hardly make one pin a day.

#### Merits of division of labour

1. Increase in productivity.
2. Improvement in skills and efficiency of labour.
3. Enables large scale production.
4. There is a lot of saving in time and tools.
5. Division of labour helps to employ right man for the right job.

#### Demerits of division of labour

1. Repetition of the same work makes labourer feel that the work is monotonous.
2. Division of labour kills the humanity.
3. Destructs the growth of handicrafts.
4. The worker loses the satisfaction of having made a commodity in full.
5. Narrow specialization reduces the possibility of labourer to find alternative avenues of employment.



## Capital

In general capital means money. In Economics, capital refers to that part of man made wealth which is used for the further production of wealth. The term capital includes buildings, equipments and other intermediate products. Building used for industry becomes capital but if it is used for domestic use, it cannot be regarded as capital. All wealth is not capital but all capital is wealth. The reward paid to capital as a factor of production is called interest.

### ACTIVITY

Can you guess what is the money capital required to start a Garment firm?

Think about your own human capital. What skills do you have?

## Forms of Capital

### 1. Physical capital

Investment on all man made physical assets like buildings and machines are called physical capital.

### 2. Money Capital

Investment made in the form of money or monetary instruments is called money capital.

### 3. Human Capital

Investment in education, training, healthcare etc. is called human capital.



## Characteristics of Capital

### 1. Capital is a passive factor of production

Like land, capital becomes inactive without labour.

### 2. Capital is man made

Land and labour are original factors. Capital is produced out of savings.

### 3. Capital is productive

It is productive because it yields an income.

#### 4. Capital lasts over time

It lasts over a period of time. It does not disappear. Capital stock kept idle can be used again.

#### 5. Capital has the highest mobility

Land is totally immobile. Labour has a low mobility. Capital has both place and occupational mobility.



Production is a function of land, labour and capital. There must be some factor, which combines these factors in right proportion, co-ordinates the process of production and bears the risk involved in it. This activity is known as organization.

#### ACTIVITY

List the qualities required to become an effective entrepreneur.

Interact with an entrepreneur and analyze the success of his or her business.

An **organizer/entrepreneur** is a person who combines the different factors of production, in the right proportion and initiates the process of production and also bears the risk and uncertainties involved in it. An entrepreneur is called as “the changing agent of the society”.



An Organizer in a meeting

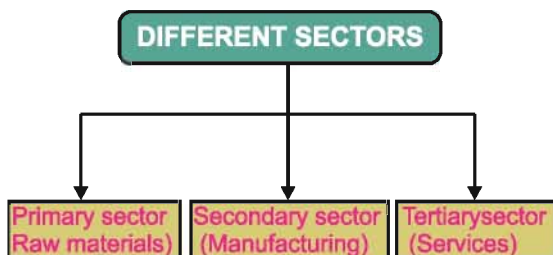
#### Functions

1. To find the profitable investment opportunities.
2. Deciding the location of production.
3. Making innovations.
4. Taking risks.
5. Facing uncertainties.

#### DIFFERENT SECTORS OF THE ECONOMY

The different occupations of man can broadly be classified into three sectors namely Primary sector, Secondary sector and Tertiary sector. The farm labourers are working in the Fields, the factory workers are manufacturing goods and Doctors, Teachers, Bank staff and Transport workers are performing their work. The wheels of economic activity are whirling around.

The movement of goods and services through the primary, secondary and tertiary sectors is referred to as the "chain of production".



## PRIMARY SECTOR

The primary sector of the economy involves changing natural resources into primary products. This sector is concerned with the production of food and raw materials and is described as primary production. Most products from this sector are considered as raw materials for other industries. Major businesses in this sector include agriculture, fishing, forestry, mining, quarrying etc. In India a large portion of the population remains engaged in this sector. In more developed countries additional capital is invested in primary means of production. Agriculture is the largest and most significant sector in the Indian economy.

## SECONDARY SECTOR

The secondary sector uses the raw materials of the primary producers and turns them into usable finished products.

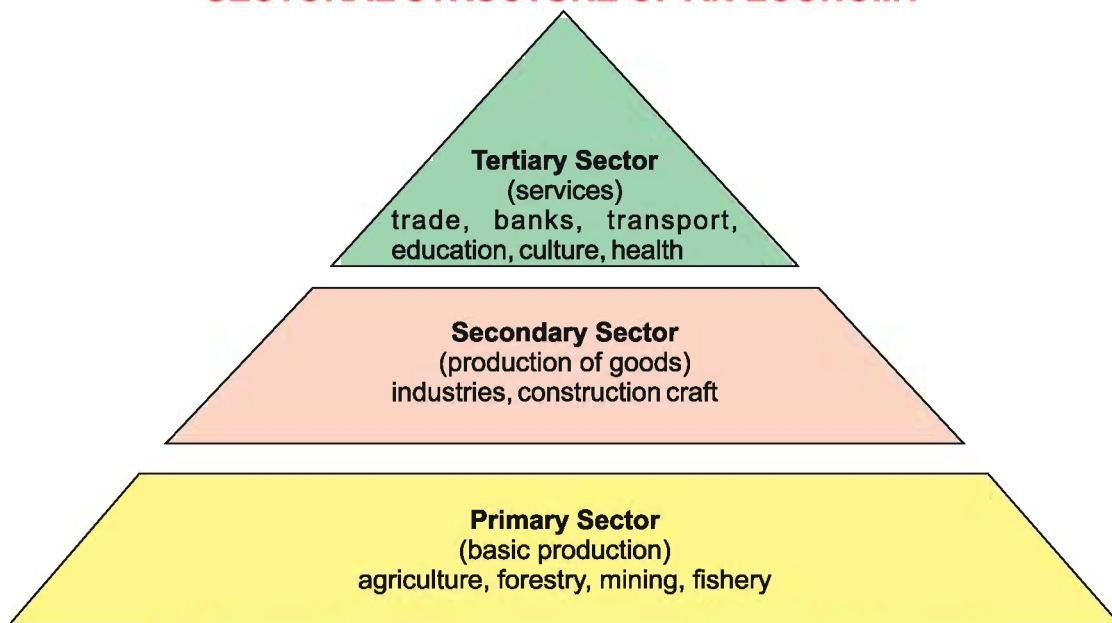
It is also called as manufacturing sector. Raw materials are converted into finished or semi finished products. This sector is made up of large scale manufacturing industries, small scale industries and cottage industries. Activities associated with secondary sector include metal working and smelting, textile production, chemical and engineering industries, ship building industries etc.

## TERTIARY SECTOR

The tertiary sector of the economy is the service industry. This sector provides services to the general population and to businesses. Activities associated with this sector include Insurance and Banking services, Health care, Transportation, Communication, Retail and wholesale, Entertainment etc.

There is an impressive expansion of job opportunities in the service sector in our country. In most developed countries, a growing proportion of workers are devoted to the tertiary sector. In United States more than 80% of the labour force is tertiary workers. Tertiary sector is becoming increasingly important in the world economy.

## SECTORAL STRUCTURE OF AN ECONOMY



Thus the three sectors of the economy are dependent on each other.

### Exercise

#### I) Choose the correct answer

- Economics is a \_\_\_\_\_ science.  
a) Social                      b) Political                      c) Moral
- There are \_\_\_\_\_ factors of production.  
a) Two                      b) four                      c) five
- Labour cannot be separated from \_\_\_\_\_.  
a) Labourer                      b) profit                      c) Capital.
- In general Capital means \_\_\_\_\_.  
a) Buildings                      b) Machinery                      c) Money
- An organizer will always make \_\_\_\_\_.  
a) Innovations                      b) Traditions                      c) Risks
- The reward paid to capital is \_\_\_\_\_.  
a) Rent                      b) Wages                      c) Interest
- Investment in education is called \_\_\_\_\_ capital.  
a) Physical                      b) Human                      c) Money
- The reward paid to labour as a factor of production is \_\_\_\_\_.  
a) Rent                      b) Wages                      c) Profit



9. In united States more than \_\_\_\_\_ of labour force is tertiary workers.

- a) 60%                      b) 40%                      c) 80%

10. Agriculture is classified under \_\_\_\_\_ sector.

- a) Primary                      b) Secondary                      c) Tertiary

## **II) Fill in the blanks**

1. Production means creation of \_\_\_\_\_.
2. \_\_\_\_\_ means wants satisfying power.
3. \_\_\_\_\_ and \_\_\_\_\_ are called original factors.
4. Capital and Organization are called \_\_\_\_\_ factors
5. \_\_\_\_\_ is a free gift of nature.
6. The concept of Division of labour was introduced by \_\_\_\_\_.
7. \_\_\_\_\_ is the changing agent of the society.
8. Secondary sector is also called \_\_\_\_\_ sector.
9. Tertiary sector of the economy is the \_\_\_\_\_ industry.
10. An enquiry into the nature and causes of wealth of nations was written by \_\_\_\_\_.

## **III) Answer in brief**

1. State Lionel Robbins' Definition of Economics.
2. What are the three sectors of the economy?
3. What is meant by Division of Labour.
4. What are the forms of Capital?
5. List out the Factors of production and their respective rewards.

## **IV) Answer in a paragraph**

1. Explain the characteristic features of land.
2. What are the functions of an entrepreneur?

## **V) Answer in detail**

1. What are the merits and demerits of Division of labour?
2. Write about tertiary sector.

### FORMATIVE ASSESSMENT

1. Prepare an album showing different types of workers.
2. Collect data regarding the different type of workers and their salaries in your locality.
3. Prepare a model of any bank you like.
4. List the different skills you possess.
5. Draw some pictures of works of people that you have seen in rural areas.
6. Prepare a project report showing the number of banks available in your city.
7. Prepare a chart showing the activities associated with tertiary sector.
8. List the steps to be taken by an entrepreneur to start a business.
9. List the currencies of different countries.
10. Collect the pictures of physical labour and mental labour.

## 2. TAX AND ITS IMPORTANCE

### Students are expected to

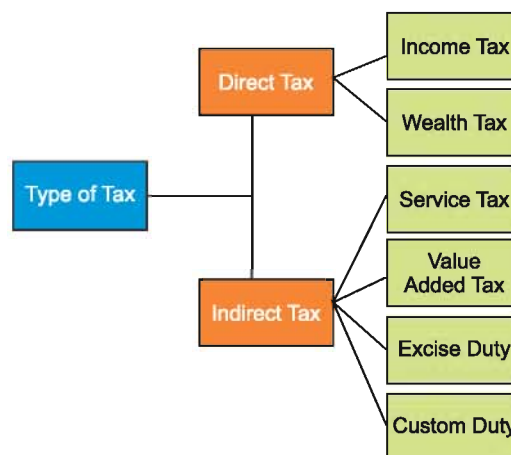
- ❖ Define tax and elucidate its kinds.
- ❖ Differentiate direct tax from indirect tax
- ❖ List the types of direct tax and indirect tax
- ❖ Understand the importance of paying the tax.
- ❖ Know the terms : VAT, TDS, CENVAT.

Tax means exaction of money on compulsion under a statute levied by the Government on income and business profits, or added to the cost of some goods, services, and transactions.

Tax (from the Latin *taxo*; "rate") is a financial charge or other levy imposed upon a taxpayer by a State or the functional equivalent of a State to fund various public expenditures. Tax consists of both direct and indirect taxes.

Tax has been considered as the building block of civilization. It is said that tax existed in Sumer, the first organized society on record, where their payment was made by its citizens. Tax was also a fundamental part of ancient Greece and Roman Empire. In Tamil Nadu we find recorded evidence on taxes in Uthiramerur rock edicts.

Let us discuss the two major types of taxes and its importance



### I. DIRECT TAX:

A government levy on the income, property or wealth of people or companies. A direct tax is borne entirely by the entity that pays it and cannot be passed on to another entity.

Direct tax is called so because it is directly paid to the Central Government by the individual taxpayer.

**The important direct taxes are listed below:**

#### 1. Income Tax:

Charge imposed by the Central Government on the annual gains of a person, firms corporate, or other taxable unit derived through work, business pursuits, investments, property dealings and other sources determined in accordance with the central law. One who earns above the prescribed tax exemption limit has to pay income tax.

### Do you know?

TDS means - Tax Deduction at Source

## 2. Corporate tax:

Tax levied by the Government on the profits of a company is called corporate tax.

The companies operating in India pay it. The companies paying the corporate tax include both Indian and foreign companies operating in India. This tax is one of the major sources of revenue for the government.

### Do you know?

Estate duty is the tax paid on the inherited property left by a dead man. It has been repealed.

## 3. Gift Tax:

An individual who receives the amount exceeding Rs.50,000 without consideration has to pay the tax called gift tax. However, marriage gifts, money received from relatives and through inheritance are exempted from gift tax.



## 4. Property Tax :

Property tax is the annual levy paid by the owner of the immovable property to the local- self government or the municipal corporation of the area. The property includes all tangible real estate property, his house, office building and the property he has rented to others.

The tax amount is based on the area, construction, property size, building etc. The collected tax is mainly used for public services like repairing roads, construction of schools, buildings, sanitation etc., Govt buildings are also subjected to property tax. The property tax includes tax for electricity, water and drainage.

## II. INDIRECT TAXES:

The tax levied by the both Central and State Governments on consumption, expenditure, privilege or right, Customs duties levied on imports and exports. Excise duties on production, sales tax or VAT at some stages of sales and distribution processes are examples of indirect taxes. Indirect tax is called so because it is not levied directly on the income of the consumer or earner.





### 1. Sales Tax:

Sales tax is levied when the movable goods are sold or bought within a Country or State. It is now termed as VAT. Do you know what is VAT? Have you seen the term VAT in the receipt of the things that your parents purchased from a super market?



### 2. Service Tax:

Service tax is a tax levied by the Central Government on service providers on certain service transactions, but is actually borne by the customers. It is categorized under Indirect Tax and it came into existence under the Finance Act, 1994.

Service providers in India pay this tax. Services like leasing, internet, transport etc., are subjected to service tax.

### 3. Custom duty:

It is charged on goods imported into a country. This duty is often payable at the point of entry, like the airport or seaport.

### 4. Excise duty:

This Tax is levied on goods produced within the country. It is also called as CENVAT (Central Value

Added Tax). Can you differentiate it from custom duty?

### Importance of paying tax:

We all pay one or the other type of tax to the government. The government collects taxes at various levels namely the Central, State and Local authorities. The importance of paying tax is as follows:

1. Tax is an important part of government's income.
2. It is our foremost duty to pay the tax.
3. The government spends the tax collected on building and developing the infrastructure like transport, communication network, hospitals, schools etc.
4. Many social welfare schemes are being implemented time and again mainly based on the amount of tax being collected from the people.
5. The budget is prepared and presented based on the income of the government which includes the tax on various kinds of incomes.
6. Income generated from taxes also used for paying international debts. On the whole payment of taxes, both direct and indirect, help the process of nation building.

## Exercises

### I. Choose the best answers

1. Tax paid by the companies operating in India is  
a) Wealth tax                      b) corporate tax                      c) Gift tax                      d) Customs tax
2. One pays the tax directly to the government.  
a) Indirect tax                      b) Sales tax                      c) Direct tax                      d) service tax
3. Which among the following is an indirect tax?  
a) Service tax                      b) Income tax                      c) Corporate tax                      d) Gift tax
4. One of the following is direct tax.  
a) Gift tax                      b) customs tax                      c) Service tax                      d) Sales tax
5. Tax levied on goods produced within the country is  
a) Sales tax                      b) Service tax                      c) Customs tax                      d) Excise tax

### II. Fill in the blanks with suitable words

1. \_\_\_\_\_ is the amount of money paid to the government.
2. One who earns above tax exemption limit has to pay \_\_\_\_\_ tax.
3. \_\_\_\_\_ Tax is levied when movable goods are sold or bought within the country.

### III Write short answers for the following.

1. What are the major types of tax?
2. List the types of Indirect taxes.
3. Distinguish between sales tax and service tax
4. Define gift tax.
5. What do you mean by VAT?

### IV. Answer the following in detail.

1. Give any five importance of tax.
2. Explain in detail the types of direct tax.

### FORMATIVE ASSESSMENT

1. Prepare the following in a chart paper and discuss with others in the class.
  - a) Fixed Taxable salary limit
  - b) Percentage of VAT
  - c) Minimum amount of taxable goods imported.
2. It is to any five major Indian companies; find out their annual income, the tax they paid.

**'I can, I did'**  
**Student's Activity Record**

Subject :

Sl. No.	Date	Lesson No.	Topic of the Lesson	Activities	Remarks